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PART I.
EDITORIAL AND ORIGINAL.

A Lecture, delivered before the Members of the Agricultural and Colloquial Society of St. Marks, by the Hon. J. S. RICHARDSON. Published at the request of the Society.

Gentlemen,—

We consider all knowledge, good in itself. No useful occupation, mean ; no walk, low ; where the aim is lofty, and no man without his sphere of usefulness.

We hold no amusement, contemptible ; which relieves the mind, or recreates the body, at proper time and place.

We would practice rational pastime, in order to advance social intercourse, and aim at concord ; while we exchange thoughts, upon topics for conversation.

Without entering into the ardor of debate ; or risking the controversy, which might follow the practical decision of the subject ; we leave the merits of the question—its elements and arguments—to be combined by the reflections of the individual members—each to draw his own conclusions. Such objects leave to our sister Society of the neighborhood ; its still higher aim, in promoting practical religion, and devoting the fruits of their domestic arts, to its elevation. The hands of the prudent attain elevated objects, by inconsiderable means.

In all ages, woman has been devoted more to practical, and immediate duty—man, more to knowledge.—Woman, more to the graces of every day life—man, more to its general action. And this line of demarcation is readily seen, in their respective pursuits.

For the promotion, then, of our own peculiar objects, more directly, I present, for your consideration, the following propositions.

1. That both knowledge, and the right use of knowledge, are inseparable from moral duty, and a part of human virtue.

2. That, as in physical nature, so it is in the moral laws, that govern man; and in his conduct, there is a certain and invariable order of cause and effect.

3. That mankind, as a principle of their moral nature, instinctively assist, and practically reward virtuous conduct.

And 4. That, as an incident to these principles, the surest practical means of success in human life, whatever be the pursuit, consists in integrity.

1. There is an absolute necessity of knowledge, as a constituent of moral duty.

Our first parents were protected, in Paradise, by their innocence. But having sought the knowledge of good and evil, they took, for themselves, and their posterity, this new prerogative, with all its responsibilities; and knowledge became the guide of innocence, and the ægis of man. From the fall of Adam, the office assigned to man, was no sinecure. Labor became his portion: he was doomed to live by the sweat of his brow; and left a free-agent to do, or not to do his duty, at his own peril, under the guidance of knowledge. Virtue, then, became a practical science, as much as an instinct. Under this astounding change of his situation, the intellectual enlightenment of man required all his industry; and the happiness of his life was attendant, only, on the conscientious discharge of every duty; through every difficulty of knowing it. But the power that assigned the arduous task, and made the law immutable, has given also the means of its performance, which renders conformity indispensable. To seek for knowledge, was made the measure of duty. But "seek and ye *shall* find," was the boon clearly promised; and the *omission* of the duty, is as *clearly* delinquency.

The second and third propositions constitute but one principle; and will further illustrate the necessity of knowledge as a moral duty. Either will, therefore, be adverted to, as the immediate object of successive illustrations may require.

2. Moral conduct has its sequence, as well as physical matter its effects. For instance: the moon rises; and the light of the sun is reflected. And if you strike your head against a wall, pain is felt; we know not why: but these consequences are certain; because we *do* know our mental perceptions, and our sensations. In like manner, beneficence, equanimity and justice, in man, are requited by the confidence and respect of his fellows. This we know, from the same source of sensible experience. And such tribute of approbation is ready, and willing, like light itself, to fall upon, and vindicate its proper object. While on the other hand, selfishness, petulance, and injustice, are punished by the contempt of the world; as surely punished, as he is punished, who strikes his head against a rock. And the moral cause of the former, is as plain, as the material cause of the latter—we judge of both by the effects. But the cause is morally certain; and there is no escaping the consequence, unless we can, and will avoid, the cause. Inadvertence or blind innocence do not arrest the consequences of physical or moral evil: although, a quiet conscience may palliate the pain of misconduct, or of ignorance. Now then, it is plain, that to discover the cause, and thereby avoid bad, or induce good consequences, is the task set for human performance. This is the price of his free agency. But happily, it is the law of our moral nature, that virtuous actions reward, and evil actions punish themselves. This law appeals, for its *best* proof, to the consciousness and experience of every man—but is supported by divine and human authorities. The practical process seems to be this: Our daily conduct attends, and forms individual character: and character is an active cause. It has sure and uniform bearing upon the fortunes of men, for good or evil. And although, the most to be pitied is the man, who having sinned against the admonitions of his own heart, never feels an approving conscience; yet, poor also, and starved is he, who cannot taste the cordial of his neighbor's esteem—"whom none can love, and none can thank." An early Greek writer describes a libeller, who would deprive you of good name, as a viper, whose head is to be crushed—such was his estimation of the value of character. And a no less celebrated English writer, distinguished for his "keen inspection into the human heart," calls reputation "the immediate jewel of

the soul." And next to an approving conscience, it is that jewel. Conscience appeals to its own inexorable judgment; but reputation, also, to a high tribunal. But great good is to be secured, and evil equally checked, by every day conduct, which, at the time, may seem remote from its ultimate ends. And in the observance and practice of this truism, there is safety. The moral sentiments of fidelity in friendship, toleration of the faults of others, forbearance of your own claims, and even the requitals of justice, which so greatly dignify human nature—charity, and "love your neighbor as yourself," *all* depend much upon the frequent interchange of thoughts and sentiments among men, in their social intercourse; *not a little*, upon habitual deference; and *greatly*, upon the smaller benevolences, which render good breeding a habit of the mind, and reduce fellow feeling to every day practice. Gen. Washington illustrates this principle, in the very first of his early maxims.—"Every action in company (says he) ought to be with some sign of respect for those present." The object is plain—If we lay aside the sign of respect, we shall soon lose respect itself, for each other: disgust or aversion follows, and then, there is but a step to distrust, and malevolence is not far off. The *far* greater part of General Washington's maxims, turn upon the same principle. The whole domestic life of this exemplary man, is, indeed, a standing commentary upon the necessity of forming morals, and of course, *character*, through the progressive means of manners and habits, in the daily intercourse of Society. And were I to generalize the elements of his successful life, and lasting fame, it would consist in this principle—Nurture virtue as you would train up a child—foresee evil, and avoid its cause—but if evil will come, *arrest* or *palliate* it, with all your force. But let us further illustrate the principle.

By the common observation of us all, and from the knowledge of our own hearts, we believe, that the practice of public worship is essential for the growth of practical religion. Our general prayers and church service are formed to suit that principle. In like manner, moral culture must be adapted to our nature, and the free intercourse of man, *with* its daily duties, is indispensable to the social virtues of forbearance, toleration and kindness. We are to put ourselves in the track of such virtues: *opportunities* must be embraced; and then, confidence

begets confidence—beneficence finds a return in its own likeness—and men discover that they love one another more than they had supposed. And thus, the upward progress of virtue is as simple in its origin, as the former downward course to malevolence. The virtues as well as vices, have made their nest in the human breast, and man is left to rear up his own happiness if he will. He has the knowledge of good and evil; and is to choose between them. Let us take for illustration, a very recent occurrence. I have cut it out of the *Courier* of the 6th September, and it sufficiently illustrates its application to the subject.

“*Tribute to Merit.*—The compliment to Capt. Perry, of the ship *Commerce*, of this port, for his humane and gallant conduct in saving the crew of a shipwrecked vessel, under circumstances which would have daunted many a man from making the attempt, (the particulars of which have been published in this paper) was received by that gentleman a few days since.

“It is a handsome silver Salver, of very neat workmanship, in the centre of which is the following inscription :

“Presented by Capt. Toup Nicolas, C. B. and the officers of H. B. M. ship *Hercules*, and the officers composing the drafts of the 15th, 34th, 43d and 93d regiments, embarked in that ship from Halifax, Nova Scotia, in March, 1838, to Capt. Perry, of the *Commerce*, of Charleston, S. C., in admiration of his humane and gallant conduct in perseveringly staying by the wreck of the British brig *Elizabeth-Caroline*, for two nights and a day in a gale of wind, and thereby ultimately saving the whole crew, who had been on the wreck in the utmost distress, for twenty-three days.”

Comment is needless. In Capt. Perry's conduct, we have an instance of the proper fruit, and specific purpose of virtue, with its reward. He who omits to serve man when he can, not only foregoes the best human prerogative, but misses the reward that, in the order of our moral nature, is proclaimed for good conduct. To the end of his life, Capt. Perry, and even his posterity, will feel the fruits of his conduct, which was so faithful to the calls of human duty.

Permit me to add another instance worth notice, in the domestic history of South-Carolina, of the practical

worth and enduring influence of remote conduct, and of the good repute engendered by it. What a striking illustration of the practical tendency of the human heart, to return good for good, have we seen exemplified, in the generous contributions of the United States, *far* and *near*, to our unfortunate city of Charleston. Her own former and frequent benefactions to others, in the like situation, were very liberal; and we now see *all* returned to her own widows, her orphans, and destitute poor, as it were in mass. What she had, herself, generously bestowed, upon the unfortunate, without expectation of return, is found, eventually, and in the natural course of generous munificence, to have been no more than lent, for her own profit, and is repaid with interest. There is, assuredly, a fit sequence to all moral actions; but the best affections often lie hid, until the occasion calls them up. *Every* virtue, indeed, requires time, place, and a proper conjuncture, for its exercise, while its culture depends on ourselves. For myself, I declare, that the fair and liberal returns made to our mother city, has done more to convince my understanding, that the six and twenty States require no more than a proper occasion, to prove their regard for each other, and their sympathy in the fortunes of a sister State, than anything which has occurred since the historical fact of the compromise of the Tariff Bill, and the practical sympathy of the whole Union, in the fortunes and just claims of our early friend and benefactor, Gen. La Fayette.

Such facts realize the ends of virtue, and fully exemplify this head of our subject. And when men honor and love the same sentiments, and *prove* their regard by corresponding actions, it is no barren sentimentality. They *do* love and honor each other; not as one loves *himself*, but in that fair degree, which we may rationally expect—to look for more, is to seek disappointment. But this is a great good, and springs chiefly from remote causes, and many small benevolences, which are readily practiced between men, who have social intercourse, and thereby permit their affections to have their natural play. But cut them off from the reciprocal communion of mind, and even former companions turn their affections into sensitiveness, to supposed neglect, and to trespasses on feeling never intended; but which, being misunderstood at the moment, remain unexplained between those who

are estranged, until finally, a habitual suspicion of each others actions is engendered, and becomes the *impassable barrier of an imaginary self-defence*. In this way, just sentiments are perverted, the mind averts from the practice of a neighbor's good, and the practical omissions of duty follow, as a habit.

Suffer me to exemplify the effects of omission and loss of opportunity, by the unfortunate neglect of human duty, in the surviving mate of the steamer Pulaski. The mate, in the first instance, very reasonably saved his own life, in preference to all others, from the alarming wreck of the vessel. But afterwards, when safe on shore himself, neglected to afford assistance to those he had left upon the fragments of the boat; and omitted to encourage others to save the lives of the less fortunate men upon the wreck: upon the bare imagination, that they must have already perished. The fault of omission, when human duty required that he should be active, constitutes his whole offence. From mere indolence of mind, not malice, he let slip the opportunity of doing the greatest good. But a man is not to carry out, into belief and action, the mere imagination of things with which he is unacquainted. Such a disorder in reasoning, strikes at the very foundation of duty, and is a grievous fault.

What a contrast to the duty *done*, and the reward won, in a similar exigency by Capt. Perry, just related. So great is the difference between the active and affirmative efficiency of virtue, and its single negative absence; in rewarding merit, or punishing demerit.

Man cannot avoid the consequences of his own course and conduct—they are the unerring signs of his inward principles and mental discipline. And his character follows their outward actings, with scarcely less certainty. Our assurance of the certainty of prophecy, is bottomed upon the unerring and unalterable coherence of moral laws. If such laws admitted of chance, prophecy would be a speculation upon chances, instead of the foresight of certainties to come. Although there may be some prophecies that go beyond this, and amount to miracles.

It would seem to follow from the foregoing principles, (right knowledge being a part of human duty, and not to know a fault, which carries its own punishment) that, by the prudent, active and judicious application of his own mental powers and industry, every man is the proper

architect of his own fortunes. That worldly gain follows skill, economy, prudence and industry, as the incident of wise conduct, and is certain, although the cause, being unseen at the time, it is often regarded as luck, or good fortune. It may be readily seen, for instance, that lotteries, wagers, mercantile policies, and the like, which are upon contingency, or the principle of hazard, do but serve to illustrate the general principle, that the consequence of human conduct is certain. The free agent may, if he *will*, play deep, and put at hazard whatever he will. And the result will be unforeseen, of course. Because uncertainty or hazard is the principle purposely adopted. But this only proves the great free agency of man. Let him adopt other principles, and the order of consequences will be seen. The national progress and stability of the United States, were, until lately, phenomena in the eyes of European statesmen, and a supposed chance. But they now begin to see, that they are in strict accordance with principles and conduct. But the precise question remains yet to be disposed of.

Whether merit and integrity of conduct, or a selfish policy and the acts of cunning, manœuvring, managing, &c., advance more readily our worldly interest and promotion, considered *apart* from individual happiness and moral duty.

This is a question; differing in its very foundation, character and ends, from any that has been discussed. A man may well be the parent of his own happiness, by conformity to virtue—but he must be the architect of his worldly fortunes, through knowledge and industry. Money and preferment are not the unavoidable incidents of inward worth, and noble conduct; like the esteem, confidence, veneration and good will of men. *Wordly* preferment comes from the arts, from industry, economy, knowledge of men, and the posture of trade, and not necessarily and exclusively from virtuous desert. Cato of Utica was explicitly virtuous—but utterly failed in his great worldly object of restoring the commonwealth of Rome. Cæsar was replete with policy; and succeeded to admiration in establishing despotism. But both fell untimely, and left unbounded fame, from very different merits. Cato's the fame of principles, and the fame of achievements, Cæsar's. Washington was at once the image of integrity, and the personification of individual

success, and public preferment. He died the death of the righteous—his end was peace; and both hemispheres proclaim his fame. But Napoleon, abounding like Cæsar, in knowledge, ability and policy, had the same enviable success, but was overthrown, and died a prisoner and a malcontent. But let it be admitted, that the examples on both sides are too equal to be relied on—that the respective influence of merit and policy, in our worldly concerns, can be no more than comparative—that they differ, only, in degrees of advantage; and that success, in either case, comes from knowledge and industry. Still, I think that the comparative advantage of intrinsic merit, may be reasonably inferred, as a corollary, from what has been established, as an incident of virtuous principles, in the consequent high character and influence such principles confer upon the meritorious, every where.

If any thing has been made plain, by my past exposition, it is, that integrity of life is a powerful auxiliary, whatever be the object of pursuit; that it supplies its own energy; that good character is the inseparable concomitant, and the very process through which genuine worth gains its positive and preponderating influence. And I have aimed to make the question, which is of high practical morals, and of enduring influence in the public school of virtue, turn upon that influence—because that ground is palpable to common experience. But permit me to go further.

The policy of the ancient Legislators, in referring their laws to a superhuman power, was founded in this wisdom: that it secured the veneration of the people, and inspired men with a high respect for the maxims, customs, and laws of the State. Antiquity was not a little indebted to such state policy, for its early civilization and shining civic virtues. The laws of modern nations have no such sanction. But our religious doctrines, and our maxims of moral conduct, are held sacred; as either expressly taught by Deity, or been sanctioned by the universal consent of mankind, from an indefinite antiquity. Now, I know no rule of conduct more venerable in age, more unanimously assented to, or more highly sanctioned by Divine and human authorities, than the simple apothegm, "Honesty is the best policy," taken in its most worldly sense.

Four hundred years before the birth of our Saviour, Socrates expresses it in its full import, in his celebrated Defence, which, not only in the pagan world, but among Philosophers, to this day, stands, for the purity of its moral sentiments, and luminous comprehension of the duties of man, only below the Sermon on the Mount. "My whole employment (said this exemplary man) is to persuade the young and old against too much love for the body, for riches, and all other precarious things, of whatsoever nature they may be ; and against *too little* regard for the soul, which ought to be the object of their affection. For I incessantly urge to you, that virtue does not proceed from riches ; but on the contrary, *riches from virtue* ; and *that all* the other goods of human life, as well public as private, have their own source, in the same principle."

Comment would but perplex the perspicuity of this rule of conduct, thus laid down by the philosopher, who never "sold his instructions," or "disguised the truth."

On the score of mere *human* authority, it is sufficient to say, that every professed teacher of morals, from Socrates to the present day, has in some way expressed and urged on man, the same rule of human conduct, as the wisest and the best. And I will, therefore, only add, that nations and men, who deny future punishments, place their doctrine on this ground ; that Deity punishes vice and rewards virtue, in this world, and not in the next. But *all* have agreed in the practical efficiency of virtue to induce reward for itself ; either *here and hereafter*, or *here alone*.

2. As to Divine authorities, for the same rule.

Do the Christian Scriptures differ from such doctrine, and place the rewards of virtue only in the repose of conscience, and happiness in after life ? Not so—it expressly promises the reward *here*, as well as hereafter. For instance, "Honor thy father and thy mother"—why ? "That thy days may be long in the land which the Lord thy God giveth thee." The reward is worldly. And St. Paul, in exhorting the Ephesian children, puts the injunction of filial obedience on the same ground ; "That it may be well with thee, and thou mayest live long on earth," are the Apostle's words. (Eph. vi. 3.) And in the same Epistle, exhorting servants to obedience : "Knowing (says the apostle) that whatever good thing any

man doeth, the same will he receive from the Lord, whether he be bond or free." (verse 8.) Turn to the Sermon on the Mount, and we find the general rule of law thus laid down: "With what judgement ye judge, *ye shall* be judged; and the measure which ye give, shall be measured to you again. (Matt. vii. 2.) This covers the whole ground; and I must not be tedious.

But, in exact correspondence with this rule, for rewarding virtue, crime, *on the other hand*, is to be checked by punishment in this world. "Whosoever sheddeth man's blood, by man shall his blood be shed." And nearly every crime of the Decalogue has expressly fixed its *human* punishment, in Deuteronomy or Leviticus. Need I add, that the second commandment promises "mercies unto thousands of them that keep the commandments;" and on the contrary, "visits the sins of the father upon the children, unto the third and fourth generation of them that hate God." And our general weekly prayer is, "to give and preserve to our use the kindly fruits of the earth, so that in due time we may enjoy them." But does not every one of the commandments imply human motives, as well as divine sanctions? Take for instance the fifth commandment, "Honor thy father and thy mother," and the world will take it as an early pledge of fidelity to all the confidences of life; and no man ever confides in the gratitude of an ungrateful child.

6. *Shed not a brother's blood*; and you will avoid the eldest curse of heaven upon the murderer.

7. *Commit not adultery*; but *preserve the body unstained*, and conscious purity will give unwonted vigor of mind, and calm repose.

8. *Steal not*; and honesty will bring greater wealth than can fall to thieves.

9. *Bear not false witness*; but *adhere to truth*, and it will buy golden opinions.

10. *Covet not*; and the inward struggle against worldly fascinations will bring enduring triumphs. Unspotted life will be as a letter of credit; and in place of ready money, good character will go before you, and stand in lieu of splendid equipage, and outriders in livery.

The innocence of Benjamin made his portion double. The filial piety of Joseph, his continence and faith, secured high command and boundless wealth. And the

virtues of Judah brought the sceptre to his hands. On the contrary, sin disfranchised the three elder sons of Jacob—and a medium virtue in the other seven, received proportionate reward, only.

What means our daily prayer? as commanded by its ineffable author—"Give us this day our daily bread"—*Bodily support is the boon sought.* "Forgive us our trespasses, as we forgive those who trespass against us," is but an application of the law of measure for measure, just now quoted from the Sermon on the Mount. How a loop can be found, on which to hang a doubt, I know not. But as doubt and incredulity are the prerequisites of rational and lasting conviction in the human mind; and as the *inward* science of such a rule is of incalculable importance, permit me further to illustrate this general law, which dispenses worldly preferment, somewhat more specifically, from the Prophet and Patriarch, who, in point of time, was anterior to Socrates; and seems to me to have been as the fountain of its truth; and has diffused it *far* over Christian and Pagan land, with all the eloquence of inspiration. I need scarcely say, that I refer to the last prophecies of Jacob. His prescient mind, on the eve of mortal dissolution, taught his twelve sons the respective fortunes and worldly preferment of their future tribes, predicated, expressly, upon the merits and deserts, good or bad, of each tribe to itself.

Here let me again observe, that prophecy is the foresight of an assured and certain truth; not a speculation upon what may or may not be.

The argument now *assumes*, that the general blessing of God had been granted, for the piety, faith and obedience of Abraham, Isaac and Jacob, to their whole race. But it proposes to *prove*, that the division of the heavenly benefaction still followed, according to the original principle of the donation, the respective merits of their children. We know that the tribes of Ishmael and of Esau, received their fair proportion, according to merit—and that the whole blessing has been suspended, for 1700 years, by the disobedience of the Jews; but is still reserved for the same race, when they shall have gone through their long travail, and deserved its return. It is as in the general course of providence; the world was given to man, but each one must earn his proportion by the sweat of his brow. Now the prophecies of Jacob point out this

course plainly, and he that reads them perceives why Reuben, Simeon and Levy cannot obtain the leading preferment of Judah, or Joseph. Their unworthiness arrests their earthly claims, and their patrimony is transferred to meritorious younger brethren. But turn to the words of the dying Patriarch, (Genesis xlix.) "Reuben thou art my first born—my might and beginning of my strength," &c., "unstable as water thou shalt not excel, because thou wentest up to thy father's bed." Instability and crime are to wrest the birthright from his tribe. Simeon and Levi are the "instruments of cruelty," and in like manner have to forego their pretensions. "I will divide them in Jacob, and scatter them in Israel." But, to his fourth son he says, "Judah, *thou art he* whom thy brethren shall praise—thy father's children shall bow down before thee." This prophecy contains the argument as well as principle. For his virtues, the sceptre taken from his elder brethren, is given to Judah, who is to rule over willing tribes. His land is to abound in wealth, and "his garment washed in wine." In the same way the Patriarch continues to foretel the fortunes of each tribe, strictly according to intrinsic desert, and comes down to Joseph. "Joseph is a fruitful bough." In him, filial love, forgiveness of injuries, continence, integrity, piety and sagacity, are to be crowned with unbounded wealth, and unbought honors. "Blessings of heaven above, blessings of the deep that lieth beneath, blessings of the breasts and of the womb."

But the reader reflects with admiration, how the virtuous heart and *uninspired* mind of Socrates could lift him up, to the clear perception of the same divine truth: "That virtue does not proceed from riches; but on the contrary, riches from virtue: and that all the other goods of human life, as well public as private, have their source in the same principle."

I have supposed the moral and philosophic authorities very convincing; but, to the scriptural, I can foresee no answer. The sentiment of Socrates, is, in fact, the precise moral of the prophecies of Jacob. But still, whatever be the authorities, the popular argument must depend on observation and experience. Americans ask for reasons before they assent to any proposition. They are a people of high common sense and radical causality, who require facts for the foundation of all reasoning.

They look for the intrinsic merit of the question, and regard little the show of virtue, that cannot exhibit its credentials in the specific objects, or purposes of mother-virtue. Our English ancestors were like ourselves, deeply immersed in worldly advancement, in their national progression, and in religion. But the distinctive feature is, that Americans look more to active life for the fruits of morals, social well-being, and thrift, and disregard formulas, however established by time, or sanctioned by authority. We live too near the times of the hardy first settlers of the country—activity has been too much kept alive by the stirring occurrences of the revolution,—the inviting and varying prospects of the far West—the agitation of savage warfare, and the erection of new States,—not to have substituted an American sphere of action, in place of European position and the staid life of older countries. In revolution, in war, in commerce, in politics, in government, the American relies little upon theory or doctrine; he hopes for better things, and tries the experiment: his sympathies are with enterprise, and his faith, great in the onward course. But they have a saving judgment in all their movements. As an American loves his country because it gives him the privileges of an American citizen, and distinguishes him abroad: and as he honors the Constitution, that protects him in all his enterprises, so he venerates the high standing of morals which characterizes the age—because both his country and government must depend upon it, for progressive strength and duration, as well as himself for character and happiness. Such a radical, reasoning, enterprising habit of mind, must always be addressed in the garb of common sense, upon sheer facts,—principles universally established or acknowledged, by our intuitive consciousness of their truth. And I now propose, uninfluenced by any authority, to address the argument to sound judgments, and to inquire, whether the rule of human conduct laid down by Socrates, may not be supported by the force of natural reasoning, and be therefore unerring.

Bear in mind, that the object is to prove, from man's experience, what plainly appears from scripture, that Deity uses human power and wealth, as well as man himself, to carry out his great moral system. That, as for instance, the merits of Cyrus the Great, having acquired wealth and power, God chose him, thus clad in

power, to be the fit instrument to deliver his chosen people, after seventy years of due tribulation, from further Babylonish captivity. That such also, is the efficiency and office of virtue, in the entire system of Divine providence, is the object of the present argument.

If there be truth in history, the scale of empire rises or falls, according to the knowledge and virtue of the people. And although faintly man aspires to imitate his Maker, he cherishes and rewards good conduct. Assuredly too, it has been made plain, that all positive virtue has a practical and specific object; and does not exist, without understanding. But let me recal this important principle, by examples.

The virtue of Moses consists, in his disenthralment of the race of Jacob from Egyptian bondage—in his obedience, in his code of laws and morals, and the schooling his people in the wilderness, until they were fitted for the promised land. The virtue of David, in his early piety, self-control and heroism in his achievements—his practical veneration, repentance, and sublime conceptions of Deity. That of Solomon, in the positive advancement of his kingdom, his just judgments, and the records of wisdom left for our instruction. They were all instances of the great success of the virtues, and used by Deity, as men with riches and power, for the fit instruments of great ends, like Cyrus.

The virtue of St. Peter and St. Paul, consists in the heroic energy of their lives; ever active, daring and fruitful in the cause they had espoused, for the regeneration of man. But turn to him who was sent on earth, in human shape, to exhibit its perfection. He did it in a hand that never tired, in a spirit that never flagged, in a heart that throbbed for human woe, but to relieve the sufferer. He, who never committed a fault, and could not stand in want, was ever the most ready to forgive, or to relieve others. And the perfectibility (we cannot know perfection) of human nature, as derived from his example, consists in being as inexorable to one's own fault, as if you never forgave the fault of a neighbor; but as liberal in excusing *his* error, as if you had to ask forgiveness for your own, *every hour*. This principle was felt by enlightened minds before the Christian era. The Saviour exemplified and enforced it. Add to it profound gratitude and adoration, and you have the whole moral of the Christian

scriptures—and in the active practice is the Christian's virtue. But apathy has not the attribute of virtue. Not to relieve when we can, is to inflict—to permit oppression is to share the crime—not to arrest slander, is to propagate it. The virtue required of man consists, therefore, in *innocence aiming to do good, through knowledge and activity*. Such human virtue is to be displayed, as in the examples just noticed, in the discharge of the duties arising from the obligation to serve God, our neighbors and ourselves. All the dignity of human nature consists in such conduct, and in the omission, there may be hypocrisy. An unfeeling inactivity too often consists in the false gravity, that a modern writer calls "an errant knave," and which retards the course of active virtue, and palsies, with stealthy hand, her vital purposes. "Be ye therefore wise as serpents, but harmless as doves." Such instruction presents the true emblem of human virtue, and from the loftiest source. Combine then, in the mind, the elements that have been presented

1. The progress of nations, through the means of knowledge and virtue.

2. The disposition of man to reward good conduct.

3. The influence of good character ; (Jacob awarded the sceptre to him "whom his brethren shall praise.")

4. The efficiency of virtue in its self-sustaining power. And apart from all authority, do they not lead to the unerring moral induction of Socrates, "That virtue does not proceed from *riches*, but on the contrary, riches, and all the other goods of human life, from *virtue*."

But I readily admit, that if we abstract merit from address, good manners, fortitude, activity, energy, sagacity, and a social spirit, there assuredly may be more than doubts of its superiority over policy. But we have already seen, that these belong to true virtue, of which innocence is but a part. Merit is moral worth, and consists in such virtue, with its attributes; or, if you please, virtue in its native ornaments. But if we disrobe merit, and give its proper attractions exclusively to policy, *then* a seeming merit conducts policy, and may, I grant, lead to the success of genuine virtue. And this accounts why worldly policy is so often successful. Demerit makes hypocrisy the substitute of merit. But such a mode of comparing the success of merit and policy, would be plainly by an unjust assumption and false reasoning.

Merit, in the very object of the question, is genuine virtue. Socrates, according to Xenophon, associated both beauty and happiness with virtue : he recognised no difference "between beautiful and good." (*Xen. Mem. by Cooper*, p. 569, 570.) The classic emblem of virtue by Plato, is therefore the true one. He exhibits virtue in the attitude and form of a fine woman, with not only her faithful chastity and matronly virtues, but in all her graces. But if, for the argument sake, you divest her of her wit and graceful attractions ; if you first make the matron a slattern, and then clothe her substitute, policy, with her attributes, you would fetter the true virtue in order that the race of life may be won by policy.

It is true, that vice in the garb of virtue may be often successful. The honied accents of the serpent beguiled our first mother, and led her, through his flattery and her own love of knowledge, from obedience. Vice was successful in mischief. But the serpent's eloquence was not *more* mellifluous or persuasive, than that of the angel Raphael, who instructed Adam in the power and goodness of the Godhead. St. Paul made known to the Athenians the true God, whom they ignorantly worshipped, with not less eloquence, than the heathen orators displayed the virtues of Mars or Apollo.

Is the counterfeit gem *more* brilliant than the true jewel? Why then should virtue be shorn of its attractions, and the substitute, policy, be alone clad in rich plumes? Better, surely, that the assuming Daw be confined to her dark feathers, and this Bird of Paradise left to her own *brilliant plumage*.

I cannot then but conclude, upon the simplest practical principles, as well as upon Divine authority—that merit, being of intrinsic desert, and carrying, as merit always does, great influence in Society ; and that policy, being but the substitute, although in the same garb, must give place and yield the palm to the true virtue, in the race of fortune as well as of happiness—and that the maxim, "honesty is the best policy," has been well adopted, and but justly appreciated, even where the object is worldly thrift.

Oct. 2d, 1838.

Advantages of Manuring.

St. Bartholomew's Parish, Oct. 22d, 1838.

Mr. Editor,—I have been planting for the last ten years and I have just now come to the determination to plant less, and manure, for I find out, from dearly bought experience, that it is a bad plan to plant largely, and not manure; for no planter can find good reasons to support him in planting largely and not manuring. What is the reason that we find so many going to the West? I think if we were to ask reasons of most of those who go from South-Carolina to the West, they would say that their lands are worn out. Well, now we will ask them how is it that their lands came to be worn out? I think they would say that they had been planting largely, and not manuring at all. I don't think, Mr. Editor, that you will find a planter who has got in the way of manuring, selling off and going to the West. Why sir? Because he has found out, that it is easier to manure one acre, than to cut down one acre and clean it up, and then he loses his crop on the one acre that is cleaned up, when, from the acre that is manured, he has every reason to calculate on a crop, if something more than common does not happen. I will advocate the manuring system so far as to say, that I do believe that in nine out of ten years, you will make a crop on manured ground. I am satisfied that the up-country planter plants one-third more than he ought to plant—I think I might say twice as much as he ought. And now Sir, what is the reason of it? One of the reasons is this—his neighbor plants largely, and he thinks that he must do what his neighbor is doing, or he is doing nothing. He will sometimes plant more than his neighbor, to have it said that he is out-cropping him. Now, sir, they are both wrong; and if you ask them both if they are not wrong in planting so much, they will tell you that they are. Ask them if they do not believe that one acre manured, will make twice as much as one not manured, and I think they will answer you in the affirmative. But candidly speaking, Mr. Editor, I do believe that there is not a set of people who stand more in their own light, than the planters; for, sir, they know that they can make more by manuring, than they can by planting largely, and yet they will

still persist in what they know to be wrong. But some of them will tell you that they have not got time to make manure. I am very sorry for any up-country planter who has not got time to make manure, for I am satisfied that if any planter has time to make manure, I say that it is the up-country planter. If they will take two-thirds of their hands, with a wagon, as soon as they are done picking cotton, and go into the woods and gather leaves, and haul them into a pen, and put their cows on them the next summer, I think they will agree with me in saying, that they have time, and I am satisfied that they will be so well paid for their trouble, that they will the next year, spend more time at it than they did this year. I last winter raked trash but one fortnight, with about seven hands, and with that and the corn stalks of about 25 acres of corn, I have made manure enough to pay me for treble the time. I am so well paid, that I will this winter spend a month, with as many or more hands, making trash. I will give a more particular account of the manure I made this year, at some other time.

I hope this piece may benefit 'Pine-Woods,' of Lawtonville, South-Carolina. I hope to see the day that we will be practical manuring planters throughout the State, and then we will be independent, for when that is the case, we will have every thing that would make us so. I hope, furthermore, that our Legislature will take a little more notice of us, than they have been doing.

I may continue this subject.

AN UP-COUNTRY PLANTER.

Experiment with Marl.

Mr. Editor,—When I wrote to the Agricultural Society on the advantages of Calcareous Manures, I did not know the result of an experiment which I directed to be made, on a single acre of very sandy land, adjoining the Edisto River Road, at Indian Field Mill. I found that the mill was built on a bed of marl, and by analysis, that it contained about one-third of lime, one-third of sand, and one-third of clay, slight colored yellow, with iron. I had sixty bushels of it thrown up in January, left for a few

weeks to dry, and then carted on the measured acre in an adjoining field, of which six acres were inclosed and planted with corn. It had by this time crumbled pretty fine, and the neighbors smiled at my expecting any good from "such yellow sand." The marl was applied directly to the roots of the corn, one half when first planted, and the other half at the first hilling. The whole field came up alike, and the marled acre appeared but little better than the rest, until the severe drought and excessive heat came on, and did great injury to the crops in that neighborhood. The marled acre then assumed an appearance decidedly better than the rest, in the height, the dark color of the blades, and in the ears. There happened to be a sale of cattle there at the time, and this was observed by all who attended the sale.

Mr. C. Rumph, who lives on the adjoining tract, and is highly respected by all who know him, told me that when he had the produce of the little field wagoned in, the quantity taken from the marled acre, was one wagon load and a half, which he considered fully equal to thirty bushels of clean corn from one acre. At any rate, he gathered but the same quantity, from the other adjoining five acres, all taken together. So that the marled acre produced five times as much as those not marled, and in the proportion of 30 bushels to 6. I have seen this little crop, and have not a doubt of the facts and cause.

It will be observed, that the marl in this case, was not scattered over the land, as is usual, but applied directly to the plant, and was not only a very economical mode of manuring with it, but very efficient.

Yours, very success fully,

JOSE. JOHNSON.

Charleston, Nov. 14th, 1838.

[Communicated for the Southern Agriculturist.]

CHARLESTON COLLEGE, Nov. 16, 1838.

My Dear Sir,—In reply to your inquiry on the subject of marl, permit me to premise an observation on two. In the first place, it may be proper to remark, that my attention has been attracted only now and then, to that matter; and secondly, that I have on no occasion entered into any minute investigation of the question relating to

marl. In sundry visits made to intelligent and practical farmers in the counties of Gloucester, Cumberland and Salem, New-Jersey, I was in the habit of conversing with them upon sundry topics of rural economy, just as they were suggested by passing incidents. Among these topics, the improvement of land by means of marl was the subject of frequent reference.

One gentleman showed me an experiment which he had made in the use of this substance as a manure, in the culture of corn. The field which he selected for the experiment, was one in which the natural power of the soil had been nearly exhausted by long cultivation. In planting this field, he had marked out a portion upon which the marl was to be placed, and had left the remainder to be planted without marl. Into each furrow intended to receive the corn, he cast two or three small shovels full of marl, and then planted and covered the corn partly with the marl, and the earth with which it was mixed. In the month of August, when I saw the field, the part which had received the aid of the marl, was well eared, of a fine deep green color, and in all respects such as you would expect to see on rich, fresh land—whilst the corn on the part of the field to which the advantage of the marl had been denied, was manifestly inferior by a large disparity. In the products of the two portions, I should have said there would be a difference of one half. From the same gentleman I understood that he considered the discovery of the use of marl as a manure, to have augmented the value of his lands one-third at least, should they be brought at once into the market—and eventually he thought their value would be doubled.

The kind of marl which I found for the most part in New-Jersey, is argillaceous, and consequently better adapted to manuring than the silicious marl—the former containing a larger portion of alumina, and the latter of silica. The color is a very dark grey, almost black. I learned from the same source, that its use in assisting weak soils in the production of small grain, was not less than in the production of corn.

The part of New-Jersey where marl abounds, was regarded prior to the use of this manure, as one of the poorest regions in the State. Emigration had despoiled it of its population, and it was wearing the aspect of desolation. For the last few years it has been evidently on the

gaining hand, both as to cultivation and the number of inhabitants. I am inclined to think that this improvement will go on to some extent for years to come.

I regret that my stock of information touching the matter of your inquiry, is so small; but perhaps it may aid you in some degree in your researches on the question.

I remain, dear Sir, with much respect,

WM. T. BRANTLY.

To Dr. Jos. JOHNSON.

Act of the Assembly of Virginia, in relation to the Silk Culture.

St. Paul's, Nov. 20th. 1838.

Mr. Editor,—Permit me the favor of laying before your readers the inclosed Act of the Assembly of Virginia, while a dependant of the crown of Great Britain. To most, if not all of them, it will be what it was to me, quite a curiosity. It will be seen, that so far back as 175 years, the silk culture was considered of such vast importance to our country, as to justify not only a bounty on every pound of silk produced, but the imposition of a heavy fine for every Mulberry Tree less than ten, to every hundred acres of land owned in fee. The fine is incurred not only by the omission to plant the requisite number of trees, but by not tending them in the manner prescribed by law, i. e. to place them "twelve feet apart, and secure them by weeding, and a sufficient fence from cattle, and horses, &c." That the law might not remain a dead letter, "it is enacted that the Grand Jury do inquire into the breach of this Act, and make presentment thereof." Why Virginia is not now a silk manufacturing and exporting State, I do not know, but perhaps the indefatigable Editor of the *Farmers' Register* can enlighten us on the subject. Why an undertaking so strongly encouraged and protected, should come to nothing, is not a little strange, considering the climate and face of the country, opposed no obstacles to the most triumphant success. I confess, getting some information from Mr. Ruffin, who is on the spot, is one of my objects in asking you to republish the Act; a second is, to multiply the chances of preserving the re-

cord of so curious a piece of legislation ; and the third is, to invite attention to a culture so well adapted to our section of the Union, and which can employ profitably many who are now a mere tax to their relatives, or owners, as their color and condition may chance to class them. The wisdom of a government is in nothing more apparent, than in the laws it may pass to encourage and protect productions of the soil. The day is coming with large and rapid strides, when we will not be able to raise short staple cotton, so as to be on a fair footing with our Western competitors. The annual departure from the State of numerous slave laborers, must enhance the value of those which remain, and of every article produced by their labor. We should not only employ all our people, but we should anxiously seek that kind of employment which is most profitable, least destructive to health, and which has least to fear from competition. Our people seem to think rice and cotton all in all, the only good things on earth ; and much I fear nothing short of a sound box on the ear, in the shape of a liberal legislative bounty, will wake their attention to silk, and some other articles, much more easily produced, and decidedly more profitable, than either rice or cotton.

The Legislature is now in session, and most earnestly do I hope, for their own honor, and the good of the country, they will pass such acts of encouragement to the agricultural portion of our population, as will mark the present year a happy era in the history of agriculture in this State, and in the *real happiness and prosperity* of her people.

Your obedient servant,

M. D. A.

An Act for Mulberry Trees.

Whereas by experience Silk will be the most Profitable Commodity for the Country, if well managed : And whereas the greatest conducement thereunto required, is Provision of *Mulberry Trees* : Be it enacted and confirmed by this present Grand Assembly, That every Proprietor of Land within the Collony of *Virginia*, shall for every hundred Acres of land holden in Fee, Plant upon the said Land, Ten *Mulberry Trees* at twelve feet distance each from other, and secure them by Weeding, and a sufficient Fence from Cattle and Horses, &c between this and the last of December 1663 ; and for every Tree that shall be wanting and untended in manner aforesaid, of the said Proportion, at the said last of *December*, 1663 ; he the said Proprietor that shall be so delinquent, shall pay Twenty pounds of *Tobacco* to the publick : Provided that this Act do not extend to *Orphans*, until the Expiration of Five years after their full age ; and then if delinquent, to be liable as aforesaid ; and no man planting more than his number, shall excuse any that hath plant-

ed less: Provided also that this Act extend not to such Proprietors as are not in actual possession. And because his Majesty hath taken particular notice of the great folly and negligence of the Country, in omitting the propagation of so Noble and Staple a *Commodity*; It is enacted that the Grand Jury do strictly inquire into the Breach of this Act, make Presentment thereof, that the offenders may accordingly be punished: And be it further Enacted, That for the encouragement of all Persons that shall endeavor to make Silk, there shall be allowed in the Publick Levy to any one for every pound of Wound Silk he shall make, Fifty Pound Tobacco, to be raised in the Publick Levy, and paid in the County or Counties where they dwell that make it.

Approbation of Pisé Buildings.

White Plains, Benton County, Ala., Nov. 16th, 1838.

Mr. Editor,—Though late, I enclose you five dollars for one year's subscription, but hope that its reception will be sufficient apology for my delay.

I have received the Nos. of the *Agriculturist* regularly, and their contents have fully answered my most sanguine expectations. In the July No., the description given by Mr. Bartholomew Carroll of his Pisé building, was particularly new and interesting to me. I think his plan of raising his walls in a mold, very good, and the material of which they are composed, not being subject to decay, must make a very comfortable and durable building; however, I am inclined to think, that unless the clay be nearly deprived of moisture previous to being rammed, the walls upon drying, will be subject to crack.* I believe that oil will make an excellent indurator for the external parts, and that some approved wash will answer equally well for those parts not exposed to the weather.

Could not Mr. Carroll recommend a wash that would render the walls impervious to atmospheric damp?

No more at present from a well satisfied subscriber,
DANIEL ANDERSON.

* For further information, we refer to our 9th volume. We regret want of room compelled us to omit several parts of our correspondent's letter. The communications promised will be acceptable.

PART II.

SELECTIONS.

Virtues of Marl Tested.

[FROM THE FARMER AND GARDENER.]

Mr. Editor,—Dear Sir,—In compliance with your request, I now offer for your consideration, and if you think it worthy, for publication, in your valuable work, a plain statement of facts relative to my experience in the use of an article which is generally termed marl, of the green sand character. In what is called marl, there is a great variety, both in appearance and substance. Mine is all of the kind known by the name of green sand marl. Did I not consider it a duty I owe to my fellow-citizens of Delaware, in addition to my promise to you, I should have declined making this statement, and have left the task to be performed by some abler and more experienced person. But considering that I was among the first in our State, who used the green sand as a fertilizer of the soil, and hoping that a knowledge of the results of my experiments from its use may have a tendency to benefit the farmers of Delaware, I shall proceed to disclose them. I am still making other trials of this substance, and when the results are known, I will communicate them to you.

The discovery of the green marl of New Castle county, begins very generally, to claim the attention of farmers, particularly in the lower part of the county, although there has not as yet been very extensive use made of it. In the beginning of January 1835, I discovered, what I considered at the time, a bed of excellent marl. I had found the same substance on my premises nearly a year previous, but from its not containing any visible marine substance, such as oyster and muscle shells, I had no confidence in its valuable quality, and therefore suffered nearly a whole year to be lost, before I tested its value by application to the land. In the winter of 1836, I caused an opening to be made in a ravine, near the waters of Silver creek, which passes through my farm, and had from thirty to forty loads thrown out, which lay until the spring, when I commenced using it on different crops. My first experiment was made upon oats sown in April; but from the large quantity used, the oats did not seed or fill well, although there was a very luxuriant growth of straw, much of which was over five feet high, and of great thickness. I exhibited a sample of the oats to the Hon. A. Naudain, and his son Dr. James Naudain; and at the same time a specimen of the marl, for their inspection and an-

alysis.—They both assured me, that the growth of the oats was alone a sufficient test to satisfy every one of the value of the marl. Nevertheless, they were kind enough to make for me a minute examination of its quality, and the result of their analysis proved that my marl, on an average, contained ten and a half per cent. of potassa, besides a small portion of lime and gypsum. And here allow me to express publicly, my gratitude and thanks to those gentlemen for the trouble and expense they took upon themselves, in order to ascertain by scientific experiments, the component parts and qualities of my marl.

Having thus become convinced of its fertilizing quality, I proceeded to get out and use a larger quantity, both for the purpose of improving my lands, and to bring the substance as a manure into more general notice; which I now fully believed, if found in sufficient quantities, would sooner or later, be the means of rendering the poor lands of Delaware equally productive, if not more so, with the lined lands of Pennsylvania. I was also more confirmed in my opinion, by reading in the New Jersey papers, various accounts of experiments in the use of a like substance, and their great success on the lands of that State. Thus encouraged, I got out all I could on my own lands.

My next experiment was on a late crop of potatoes, planted in the latter part of May. I manured the whole lot with stable manure, with the exception of four rows, two of which were planted without manure or marl, and the other two left for the experiment of marl. On these two rows, I placed the marl nearly of the same thickness as I did the manure, on the other parts of the lot. I watched the progress of the crop closely, and found during the season, that the manure caused a much larger growth of tops than the marl, and the marl a considerably greater growth than where the soil was suffered to remain in its natural state. This showed me again very plainly that marl was worth something. Another fact struck my observation—the tops of the manured potatoes had dried and burnt very much, while those that were marled, retained until frost a very green and luxuriant appearance. I did not expect, from the growth of the tops, that the marled rows of potatoes would be as productive at the root, as the manured; but when I gathered the crop, I found on actual measurement, that the marled rows had one-fourth of a bushel of potatoes more, than any two rows of the manured in the lot; and near one hundred per cent. more than the soil alone was able, or did produce. This experiment I assure you, fully confirmed me in the belief, that the green sand, or marl, was not only equal, but superior to stable manure for the growth of potatoes.

I should have previously noticed, that in June, on a single land in my clover field, I spread five small cart loads of marl not averaging more than twelve bushels, equal to about 120 bushels to the acre. Its operation was not discovered on the growing crop, as it was nearly ripe at the time, and soon after harvested, but on the second crop, a marked difference was very soon discovered.—A number of gentlemen came to examine it, who concurred in opinion, that there was fifty per cent. more clover on that land, than there was on the adjoining lands in the same field. I was satisfied myself, that there was a great difference, but could not believe it so great, until the clover was cut in September for seed, when the opinion of the gentlemen alluded to, was fully sustained. But this was not all the advantages derived from the use of the marl on this land. A very considerable crop of

white clover was produced, which was not to be found in the other parts of the field.

The latter part of the same month (September) the whole field was ploughed preparatory to the wheat crop, which was sown early in October; and although I had realized such an incredible difference in the product of clover, I scarcely entertained a hope of seeing any effect of the marl upon the wheat, as the deep ploughing I use in seeding, I supposed had buried it so deep, that its present effect would be lost, and not be seen again till thrown on the surface, by ploughing for another crop. The winter if you recollect, set in early, and the wheat had made but little progress during the fall. In the spring of 1837, the wheat generally, looked very indifferent; and the probability was, that we should have a very short crop, as it had been so much injured by the severe winter of 1836-7. As it regarded my own prospects, I would have willingly, early in the season, have taken the cost of seed and expense of seeding for my crop. But as the season advanced, the prospect brightened; and at harvest, a tolerable crop was realised. On the part of the field I had marled, it grew better than on the manured land, and continued to outstrip it until harvest. A number of neighboring farmers visited the field to witness the growth and appearance of the wheat, and nearly all were of opinion, that there would be at least one hundred per cent. more wheat cut from the marled land, than from any other where neither manure or marl had been used. Among the visitors was our States geologist, Mr. Booth, and Major Stockton, one of the geological commissioners, who will readily agree, I doubt not, to my statement, of the great benefit derived from the action of the marl upon a part of my wheat crop of the the said year, 1837. Since harvest, the same prominent difference is observable in the growth of grasses. The marled land is well set in red and white clover, while immediately alongside of it, little or none is seen. One thing I had nearly forgotten to mention; while nearly my whole wheat field was much struck with rust, the marled part of it was as bright and clear as could be desired; there being neither rust or smut to be found there. The wheat on the marled land ripened, and was ready to harvest several days before the manured wheat.

The field contains forty acres, and I believe if I had marled the whole at the same rate as I did the land, of which I have been speaking, which would have cost me only about one hundred dollars, instead of cutting little more than 300 bushels, I should have obtained at least 600 bushels. I sold my wheat at \$1 60 per bushel, and if I had marled the whole field, after all expenses deducted, my gain in money could not have been less than three hundred dollars; and that gain would have been on the wheat crop alone, to say nothing of the advance in the value of the clover crop succeeding it.

My next experiment was made on about eight acres of ground in my corn field of last year, 1837. The ground was flushed up, and about 1600 bushels spread upon it, say 200 bushels to the acre. It was harrowed in well, so as to mix with the soil, previously to laying the ground out for planting. The marled lot was selected from the poorest part of the field, which had not been reached with manure, leaving a part of the same quality of land on each side of the marled lot, without marl, that a fair test might be obtained.—The corn was planted on squares of four feet.—After planting, I watched very closely its progress, and soon found a decided advantage in favor of the marled

portion of the field. Its action on the young corn was very apparent and immediate, and by the time it was one foot high, any person could have traced the last row where the marl had been used, without difficulty. The same difference was visible throughout the whole season; and when the corn generally was burning with drought, that which was marled, looked green and luxuriant, and maintained throughout the whole season, a wholesome appearance, without burning in the least, or changing its color.—The growth of the stock was much larger and higher than any along side of it, and in the earing a still greater difference was to be found. The universal opinion of those who examined the field was, that the crop would be doubled on that part which had been marled. Several gentlemen desired me to cause a measurement to be made, of an equal quantity of corn from the natural soil, and the marled land, to which I cheerfully assented. When gathering the crop, I made an accurate measurement of seven rows without marl, and seven where it had been used. The result was, that from the seven marled rows, I had $29\frac{1}{2}$ bushels, and from the seven of natural soil, only $12\frac{1}{2}$ bushels; making a difference in favor of the marled land, of nearly 130 per cent. The land I have now in wheat and oats, has all been marled; when these crops are harvested, I will cheerfully inform you of the results, for the information and benefit of the farming interest of Delaware.

There are large quantities of excellent marl in St. George's hundred, and many pits now opening, near Drawyer's creek, on the farms of Messrs. Polk, Croft, Rogers, M'Clane and Simms, within one mile of Cantwell's bridge; also, on the waters of Silver run, on the lands of Messrs. Glazier, Vandegrift, Townsend, Higgins, Jefferson and my own, which would not be to haul more than one and a quarter miles to Appoquinimink creek, where there is five and a half feet of water. I have lately opened a road to Augustine landing, on the Delaware river, at the lower end of Reedy Island, where I am depositing for sale, a quantity of green marl. Vessels drawing eight feet, can land and depart from this landing. The present price at the pits, is twenty-five cents per ton, which is very low indeed; but that is as it should, be until the use of the marl becomes general, and its benefits fully known and acknowledged. I am selling mine at the said price, and find the demand constantly increasing. I should also mention, that Thomas Stocton and the Messrs. Cleavers, near Port Penn on the Delaware, have green sand marl of good quality; as have several other persons in that section of the country. The quantity is thought to be inexhaustible in St. George's hundred; and we flatter ourselves, that, should the agricultural community take a proper interest in applying it to their lands, in less than ten years from this time, St. Georges hundred must become the garden spot of the State of Delaware. You will perhaps say we are too sanguine in our hopes and expectations—if so, I will just refer you to the benefits derived to a part of New Jersey, which I visited for the express purpose of examining the Jersey marl and its action upon the soil. There the most sterile soil, has, in less than ten years, become almost a garden spot. Land which sold ten or twelve years ago in the vicinity of Woodstown, for less than ten dollars an acre, cannot now be purchased for one hundred dollars an acre, and this sum has been offered and refused for much of it; the increased value of which it is wholly to be attributed to the use of marl such as ours, and of no better qual-

ity. Our soil is naturally much better than that, why then, may we not anticipate similar advantages?

Your readers may rely upon the above statement of facts, and I hope they may profit by them. In this substance, the means is provided by Providence to enrich our lands in all parts of the State, and thus stay the tide of emigration to the wilds of the west; for what Delawarian would leave his dear little State, who has comfort and independence at home.

GEORGE W. KARSNER.

Near the Trappe, New Castle co., June, 1838.

Cultivation—Curious Facts.

[FROM THE GENESEE FARMER.]

The history of some of our commonest agricultural and horticultural products, furnishes a useful lesson respecting the beneficial effects of a careful lesson respecting the beneficial effects of a careful cultivation. The husbandman may read, in the case of the potato particularly, not merely the effects produced by accident in the introduction of useful plants, but the vast improvements resulting from judicious culture.

The speech of Col. Knapp, in delivering the premiums awarded by the American Institute to individuals residing in Newark, embraced many curious facts, which will probably be read with profit by intelligent farmers. We quote a few paragraphs.

"Every thing in this country, (said he,) has been brought forward by protection. In this bleak clime, but few of the sustaining fruits of the earth were here indigenous, or in a perfect state. Even the Indian corn so often considered as native here, was with difficulty acclimated. It was brought from the South, and by degrees was coaxed to ripen in a northern latitude. The aborigines who cultivated it, taught the pilgrims how to raise it; they plucked the earliest ears with the husk and braided several of them together, for the next year's seed, and their care was rewarded by an earlier and surer crop.

"The pumpkin brought from Spain, was first planted in Rowley, Massachusetts, and it was several years before they came to a hard, knotty shell, which marks the true yankee pumpkin such are selected for the golden pies of their glorious thanksgiving festival.

"Our wheat was with difficulty acclimated.—That brought from the mother country had grown from spring to fall, but the season was not long enough here to ensure a crop; it was then sown in the fall, grew under the snows in winter and catching the warmest growth of spring, yielded its increase by mid-summer.

"Asparagus, which is now the delight of all as an early vegetable, and for which several millions of dollars are paid our gardeners yearly is of late culture in this country. At the time of the revolution, asparagus was only cultivated on the sea-board: this luxury had not then reached the farmer of the interior."

The history of the potato is a singular one.—Rees' Encyclopædia states that the potato was first brought from Virginia, by Sir Walter Raleigh, to Ireland. The writer should have said from South America in the latter part of the sixteenth century. He had no idea of its ever being used as an esculent, at that time. It was pointed out to him as

a beautiful flower, and its hard, bulby root was said, by the natives, to possess medicinal qualities. He took it to Ireland, where he had estates presented to him by Queen Elizabeth, and planted it in his garden. The flower did not improve by cultivation, but the root grew larger and softer. The potato, in its native bed, was a coarse ground nut. The thought struck the philosopher to try the potato as an edible, and boiling and roasting it, found it, by either process, excellent. He then gave some of the plants to the peasantry, and they soon became in a measure, a substitute for bread, when the harvest was scanty.

"The potato was successfully cultivated in Ireland, before it was thought of in England; it grew in favor by slow degrees, and was so little known when our pilgrim fathers came to this country, that it was not thought of for a crop in the New World. It would have been an excellent thing for them if they had been acquainted with the value of the potato. It was not till 1719, that the Irish potato reached this country. A colony of Presbyterian Irish, who settled in Londonderry, in New Hampshire, brought the root with them. This people found their favorite vegetable flourished well in new grounds. By degrees their neighbors came into the habit of raising potatoes; but many years elapsed before the cultivation of it was general among the yeomanry of the country. Long after they were cultivated in New England, they were held in contempt, and the master mechanic often had to stipulate with his apprentice that he should not be obliged to eat potatoes. An aged mechanic once informed me that he raised nine bushels, having at that time (1746) a dozen apprentices, but did not venture to offer them a boiled potato with the meat, but left them in the cellar for the apprentices to get and roast as they pleased; he soon found that he should not have enough for seed, and locked up what was left. The next year he raised the enormous quantity of thirty-six bushels; the neighbors stared—but his boys devoured them during the following winter.

"About this time some of the gentry brought this vegetable on their tables, and the prejudice against them vanished. Thus by degrees, a taste for this food was formed, never to be extinguished. The cultivation of the potato is now well understood—a crop ameliorates, instead of impoverishing the soil, and the culture can be increased to any extent. Thus, by the curiosity of one lover of nature, and his experiments, has an humble weed been brought from the mountains of South America, and spread over Europe and North America, until it is emphatically called 'the bread of nations.' Still, the country from which it was taken, has been too ignorant or superstitious to attempt its cultivation, until within a few years.—Now the lights of science are chasing away the long deep shadows of the Andes.

"Rice was brought from India in 1722, and cultivated by way of experiment in South-Carolina. It succeeded well, and was, for many years, the staple article of the State. It seems strange, but it is not more strange than true, that a vegetable should have a moral and religious influence over the minds of men. Brahma could never have forced his code of religious rites, with an hundred incarnations, if India had not abounded in the rice plant. His followers would have become carnivorous, notwithstanding all the rays of his glory and the awful exhibitions of his might, if he had not driven the animals away and secured the vegetable kingdom for his worshippers. Man is, in

spite of his philosophy, a creature of the earth—and in a common measure, like the chameleon, takes the hues of his character from his position and his food.

“The cotton plant was first cultivated as a flower in our gardens, and a beautiful flower it is. This plant alone, has made a revolution in the finances of the world. Look at the growth and consumption of it in the United States, and the immense manufacture of it in England, where it cannot be grown, and you will find my assertion true in its most expanded sense.

“Until our purchase of Louisiana, this country was indebted to the East and West Indies for sugar. In this country—the thirteen United States—sugar and molasses were made in small quantities, from corn-stalks, sweet apples, pumpkins and maple sugar trees; but all put together, furnished but a small part of the sugar demanded by the great mass of people. Our people are fond of saccharine, or sweetening, to use our peculiar term for it.

“The corn stalk, the pumpkin, and the sweet apple, are given up for sugar or molasses—and the maple tree falling before the axe, and we must rely on the sugar cane alone, unless we can substitute, as in France, the sugar beet. The culture of the sugar beet has been commenced with us, and probably will be successful.”

On Planting Corn.

[FROM THE NEW-ENGLAND FARMER.]

Mr. Editor,—It has been a common practice, with many people in Massachusetts, to put a shovel full of rotten manure in the hill on planting corn or potatoes, in addition to the green or long manure spread over the ground and ploughed in: and since the cold seasons have commenced, this practice has increased, for its advocates fear they shall have no crop if they rely wholly on spread manure.

There is another class of farmers who never manure in the hill, but rely on what they may spread over the ground for present or future crops.

Which system is best?

Some contend, “If you have but little manure put it in the hill—if much spread it.” This can never be a safe rule. I would rather say if you have but little manure plant but little corn.

It is believed that manure should never be left long in heaps.

Muck is like money—good for nothing before it is spread.

People are deceived by first appearances. Corn and potatoes often look more rank in June and July when growing in a shovel full of manure, but is the crop generally larger? We think it generally smaller. If stalks are the principal object, put manure in the hill, if not, spread it, and you will obtain a better crop. If your land be poor spread the coarse manure first, and plough it in; then put on your compost manure, spread it and harrow it in; a portion of it will then be in the hill, but not so great a portion as to injure your crop or your land.

The advantages of this course are: you are enriching your land—you are obtaining a better crop and with less labor—you run less risk

from worms and from crows—for worms delight in manure heaped up, and crows find less labor is required to pull corn out of a heap of manure than out of the earth.

But I am often told "we cannot raise corn on cold and wet lands without manuring in the hill." No nor then either. Any man who attempts to raise Indian Corn on low or wet lands deserves a guardian immediately. Why plant low or wet lands with a grain that requires the warmest soils and hottest summers to bring it to maturity?

You can do infinitely better with your low or wet lands than to plant them at all. Keep them in grass, renovate them by turning in a crop of rowen one month after haying, and by seeding down immediately to grass again; your lands will then grow richer at every turn. If you have no warm and dry land, why buy some; or rather buy your corn, and let those raise it who have suitable lands, as we let them raise our rice, our cotton, and our tobacco.

But a quite small field, if suitable, will furnish any family with bread; and hogs and horses may be kept much more economically than on Indian corn raised on cold and wet lands.

Yours, &c.

W. B.

Framingham, May 20, 1838.

Manure—Construction of Barn Cellars.

[FROM THE NEW-ENGLAND FARMER.]

We have already remarked on the value of manure to the farmer. In our old lands it is idle to think of success in agriculture without some artificial means of enriching the land. We have spoken of the extraordinary prices paid for manure by farmers in the vicinity of our large towns. We know the fact that six dollars has been paid in the city for a cord of manure; and at a country town several miles in the interior seven dollars and a half per cord were paid the last season for all that could be obtained. Manure it is true must be had; but what shall we say of the good judgment or management of farmers who pay such prices, when the means in abundance of supplying their wants at half this expense are or might be had upon their own premises. We know a farmer, who annually expends five hundred dollars for manure in a city; and then is obliged to transport it at a distance of three or four miles. Yet the same farmer has resources within himself, where for the same expense he might obtain twice the amount of manure, and of equal value. He has no barn cellar; he has no compost heap; his cattle are not yarded except in winter; he collects no bog mud; he takes no pains to save the contents of his sink and privy; he fats no cattle; he keeps but a single pig; he sells his hay; he sells his milk; he sells his potatoes; he raises no esculent vegetables for his stock; and this perpetual purchase and carting of manure, to say nothing of the money paid out, is an occasion of excessive toil, fatigue, and vexation. True he "makes money" even in this way and finds a reasonable compensation for his labor. It would be difficult to turn him from his accustomed track; but will any reflecting mind pretend that "he works it right."

But we will proceed to say what may be done; and then leave it to the farmers to say what ought to be done.

In the first place, then, manure should be as much a specific object of labor and pursuit with the farmer, as any of his crops; simply because he cannot have any crops without it. His first business should be to provide a place for its deposit, its accumulation, and its security. Manure is money. It costs money. It produces money. Precisely then as he would take care of his money, let him take care of his manure. For his use there is no difference between them, save that the returns of manure, skilfully and faithfully applied, are usually more certain and proportionately more liberal than the returns of money. He wants therefore a place for its deposit and accumulation. It should be near at hand, where it will be easy to transfer to it all that will contribute to its increase. It should be near the barn, where it may receive all the deposits of the cattle; and should be so situated that the liquid as well as the solid manure may be secured. It should be in the neighborhood of the hogs pen, that their manure may go into the common heap. If possible the privy should be near it, that the powerful manure furnished from that source may be mixed with the collections; and the sink should be so contrived as to empty its rich contents into the common receptacle to moisten it, and increase its efficacy. It should be the great object of the farmer in the next place to secure it from the sun, the rain, and the air. Manure thus protected and housed, in the opinion of some of the best farmers in the state, it is worth fifty per cent. more, than that which is left exposed in the usual mode. It is more active, and more powerful. A barn cellar built expressly for the purpose of thus securing the manure, is the proper receptacle for the compost heap; and to form a general deposit of whatever may be thrown into it.

No farmer therefore, should be without a cellar under his whole barn. The cost is comparatively trifling; the uses and advantages most important. It should be well stoned; the bottom made slightly dishing; and paved or made impervious to the water by being puddled with clay. It should have a trap-door or doors in the barn floor, and where the cattle are tied, so that all their droppings may be thrown into it; and that mud, or mould, or peat, may be easily put into it both for the sake of increasing the heap, by these valuable additions; and that they may act likewise as absorbents, to gather and fix all the liquid manures. It should be high enough to receive a wagon or cart for the purpose of loading; and it should be completely enclosed that the contents may be secured from the sun, and rain, and air. The proper site for a barn is on a side hill, where the bottom of the cellar may on one side be on a level with the surface of the ground; and where three sides being formed by an excavation into the side hill may be well stoned; and the fourth side protected by movable wooden doors. It should be likewise a place for housing a certain number of store swine, who are to be employed in turning, dissolving, and enriching, the contents of the cellar. Such is what a barn cellar ought to be. There are few situations, where such a cellar cannot be formed. We have seen many such cellars, and are happy in perceiving that they are fast coming into use; and that, in regard to barns recently erected or in the process of erection, a valuable barn is now seldom built without such provision. The cost of such a cellar will in any situation be fully paid for in a short time by the increased quantity and increased value of manure.—We often here farmers say they would have a barn cellar if they could afford it. Now we say that if any man calling himself a farmer, cannot afford to make a

cellar under his barn, he hardly deserves the name of a farmer, and certainly has no pretensions to the character of skilful, or wise, or provident. We should add that such a cellar should always if possible open to the South. In the spring this is desirable in order to facilitate the removal of the manure; and in a cellar opening to the South, the contents of the are far less likely to be frozen than if the opening of the cellar were to the North and in the shade.

We leave this subject for the present and shall endeavor to resume it in our next. The importance of a barn cellar is so great that we take every occasion to urge its erection on every thrifty farmer, and and the suggestions were given, though they may be familiar, embrace the prominent and important points in the construction of a barn cellar.

We might go farther and recommend a separate and water-tight vault for the reception of the liquid manure; to which, by gutters properly constructed, all the urine of the cattle when tied in the barn, might be at once conveyed, with strainers so fixed that the solid parts might be effectually excluded; and that from this reservoir it might be pumped out and distributed at pleasure. This is the universal practice in what may perhaps be considered the best farming district in the world: Flanders; and here these cisterns are made of stone. But this is an advance in improvement to which it can scarcely be expected that our farmers should proceed until a vastly increased and crowded population shall compel them to adopt every practicable means of improvement. We have met with only two cases, where such provision has been made. The advantages in these cases were obviously so great, that though we may not look for any thing like a general introduction, we may at least hope to see such provision occasionally, and perhaps frequently made.

To the Growers of Fine Sea-Island Cotton.

[PUBLISHED BY REQUEST.]

Charleston, S. C. Sept. 21, 1838.

Messrs. BROWNS & WELSMAN.—*Gentlemen*—We beg to direct your attention, and that of your friends, who are growers of fine Sea-Island Cotton, to the subject of the annexed letter address to our friends in Manchester, by a highly respectable House engaged in the fine Spinning Trade. We are all aware of the objectionable feature in fine Sea-Island, of which not only the above House, but also all the other fine Spinners have repeatedly complained; and we trust you will agree with us in deeming the subject of sufficient importance to be submitted at once to the notice of our Planters. Their known skill and perseverance may devise some means of abating, if not removing altogether, the evil pointed out. Accompanying the annexed, we have samples of the different styles of preparation, from the most faulty to that which is referred to as a specimen of the perfect; and we invite you to call and examine them. Requesting you will aid us in giving circulation to the annexed,

We remain very respectfully, your obt. svt's.,
GOURDIN, MATTHIESSEN & CO.

Manchester, (Eng.) August 2, 1838.

We have often in conversation with you expressed our regret that the growers of fine Sea-Islands in so many instances injured their Cotton by stringing and matting it in the getting up, and in hope of drawing their attention to the subject through the medium of your House, we beg to trouble you with the following observations.

Fine Cotton Yarn is esteemed in proportion as the thread is uniform in substance, free from lumps, and strong. The latter has been decidedly improved by the introduction of the select seed Cotton, but the levelness of the thread has been impaired rather than otherwise, and this arises from the multitude of small white specks or nitters, with which the staple of the finer and softer kinds of Sea-Islands, and the select Cotton seed particularly abounds.

In examining these nitters through a microscope, we find them in general composed of kinds of fibres presenting an appearance much resembling the mistletoe plant in this country, and for some time, we feared they were excrescences peculiar to the fine fibre, and inseparable from it, but the two recent samples of beautifully fine select seed Cotton, sent us by you are so free from this defect, that we have now a strong impression they are chiefly produced by an *overhandling* in the getting up—at least, we can multiply such nitters here, by mismanagement in the cleaning process, and we have no doubt the same effect is produced in America. We would therefore strongly urge the Planter's attention to this point, for in all cotton goods, such as gauze, muslins and laces, it takes immensely from their value and beauty, and limits the use of the finer yarns, which are chiefly used for these articles. As an instance of this we may state that one of our customers informs us he frequently pays from 9d. a 1s. per yard upon his finest muslins for picking out the the nitters, one by one with a needle, after the goods were woven—an expense which is equal to from 10s. a 30s. upon each pound weight of muslin. Our experience has proved that the softer and more silky the staple, the more easily it is nittered, and as the Spinners possess no means by which nitters can be removed from the Cotton when once formed, the only means of remedying the evil is to *prevent their formation*.

To this point therefore, the attention of the grower should be strongly directed. *All unnecessary handling, whipping, tossing, or shaking of the Cotton* ought to be avoided. It should be as well cleaned as possible, but yet *free from stringiness*, and the fibres be left in the loose and disentangled state they appear in when just separated from the seed. If this were attended to, it would materially improve the appearance of fine yarn, and remove the never ceasing complaints of the fine muslin manufacturers, and we are persuaded, tend to increase the consumption of fine Cotton goods.

Any reform you can bring about in this matter will be a benefit to trade; and oblige,
Yours, &c.

The Committee to whom was referred the letter of a respectable House in Manchester, England, engaged in the manufacture of fine Sea Island Cotton, respectfully report, that the matter to which their notice has been directed is one of deep importance to the grower of that valuable staple production. If, in consequence of his neglect, or want of skill, a pound of muslin, which would otherwise command its full price, is depreciated from 10 to 30 shillings, duty and interest obviously impel him to the providing of a remedy at once prompt and efficient.

Through the politeness of Messrs. Browns and Welsman, three samples of Cotton, being specimens forwarded from Manchester, were received from Messrs. Gourdin, Matthiessen & Co. These samples are endorsed as follows:—"No. 1, illy got up and nittered," "No. 2, illy got up and partially open," "No. 3, well got up." In examining the "nitters" in No. 1, through a microscope that magnified one thousand times, they were discovered to be in general of a globular form, and to consist of filaments of Cotton with interstices of various diameters, readily reducible in size by pulling the long threads attached to the mass. This, however, could not always be done, as the knot of fibres, constituting the nitter, was in many instances too strongly formed. The Committee next proceeded to the examination of samples of seed Cotton. In about a pound, personally gathered by one of them from *fully matured* pods, produced from *healthy* plants, no nitters were observed—In the same quantity picked from *diseased* stalks, which bore *defective* fruit, several were seen. These were subjected to the test of the microscope, and precisely the appearance that characterized those taken from the ginned Cotton in No. 1, was exhibited. Repeated inspections, since have produced no marked variation in the general results. The Committee therefore with confidence deduce the inference, that preparation, except perhaps in the insulated instance hereafter to be noticed, is not the cause of the nitter. In confirmation of the opinion, putting aside the conclusive facts adduced, the different processes through which the Cotton passes, whilst in the hands of the Planter, need only to be briefly adverted to. After the stained is separated from the white, the latter is thrown in small parcels into a whipper, in order to extract the dirt and to throw off the short and weak fibres, which, if allowed to remain, would detract very materially from the value of the crop. This machine, constructed of wood with round wooden teeth, is turned by the hand. Unless the door of the whipper be closed, which is never done, the egress of the Cotton is quickly effected. After this operation, the Cotton is ginned and then taken to the moting house, where, on a frame of wood work, it is gently shaken and partially opened by the hand. When clean, it is received by the packer, who, with a wooden instrument, compresses it into a bag, weighing, when finished, from 300 to 400 pounds. In these various but necessary modes of treatment, in not one of which any violence is used, the Committee feel persuaded that the staple sustains no injury whatever. It is well known that every description of Cotton, except the finest qualities of Sea-Island, before it is converted into fabrics, is subjected to numerous operations, all of which are performed by machinery. From the willow, which, by its revolving spikes, tears open the matted masses, succeeded by the scutching machine in which the Cotton is beaten by metallic blades, revolving on an axis at the speed of from 4000 to 7000 revolutions in a minute, other machines with iron fingers, teeth and wheels follow, so that it may almost be said that, without the aid of human hands, the vegetable wool "is opened, cleaned, spread, carded, drawn, roved, spun, wound, warped, dressed and woven."

Now, although it is represented, that the superior qualities of black seed Cotton are not thus wrongly treated, yet, as they are "opened and cleaned by being placed upon cords stretched on a wooden frame, and then beaten by women with smooth switches," the Committee are at no loss to perceive how the complaints of the manufacturers by their own act may be increased. This last mode of cleansing the raw

material was very generally pursued by the Planter a few years ago. Were he now to resume that ready method of preparing his crop for market, he is satisfied, that whilst his time and labor would be saved, the fabrication of fine goods would be likely to incur an additional expense of no ordinary magnitude. By using switches, it is nearly certain, that the weak fibres are broken into minute parts and with the naturally short and rotten, intermix and become entangled. Although therefore, the imperfection of staple, which is the special subject of this report, is undeniably common to the Cotton plant under peculiar circumstances, the Committee incline to the opinion, that that imperfection can be created by artificial means, and from experiments instituted by them, is engendered by the different processes through which the Cotton goes in its conversion into cloth, as already particularly described. That the nitter however, is occasionally formed through the want of foresight on the part of the Planter, when his crop, from adverse seasons, or other causes, is defective in texture is highly probable. The filaments of unripe Cotton, are transparent cylindrical tubes. When ripe, even before the capsule bursts, the tubes collapse in the middle, forming semi-tubes on each side, which give to the fibre, says Mr. Baines in his able treatise on the Cotton Manufacture of Great Britain, when viewed in certain lights, the appearance of a flat ribbon with a hem or border at each edge.* Unripe Cotton† is finer than that which has attained its full age, but is deficient in the other essential attributes of a perfect staple, strength and length. Some of the filaments indeed are not the eighth of an inch long, and until several days after the opening of the capsule, are found doubled or curled; full of watery and oleagenous particles; the Cotton is wet to the touch and is of a brown hue. In this state unless dried in the sun it becomes more or less moldy; the superfluous oil from the seed, which ought to have escaped, is diffused through the mass; the color soon changes; heat is generated; and the staple, originally strong, is quickly perceived to be materially affected.—Hence, it is not surprising, that in immature Cotton, distinguished as it is known to be, for its delicacy of texture, variableness in length, and want of pliability, when subjected to the mildest mode of treatment to free it from extraneous matter, the threads should cross and mix with each other; thus forming artificial nitters. Within a few years, the action of the sun with a view to the desiccation of the wool, has been sedulously avoided by perhaps a majority of our Planters. The daily gatherings are spread in houses or under scaffolds erected for the purpose, and thus the dry-

* "The twisted and corkscrew form of the filament of Cotton distinguishes it from all other vegetable fibres, and is characteristic of the fully ripe and mature pod. This form and character the fibres retain ever after, and in that respect undergo no change through the operation of spinning, weaving, bleaching, printing, and dyeing, nor in all the subsequent domestic operations of washing, &c. &c., till the stuff is worn to rags, and then even the violent process of reducing those rags to pulp for the purpose of making paper, effects no change in the structure of these fibres."—From the difference between the elementary fibres of Cotton and flax, the latter being transparent tubes, cylindrical, and articulated or joined like a cane, it has been incontestably proved, that the mummy cloth of Egypt was linen.

† By immature or unripe Cotton, is meant Cotton that, from unfavorable seasons, &c. &c. is made to open prematurely. The pod, about half the size of the full grown boll, becomes black, and, as soon as it has been hardened by the atmosphere, bursts and discloses the imperfection of its fruit.

ing process, if a few exposures in that way is worthy of this appellation, is conducted. That the practice is radically wrong for the reasons already assigned, the Committee firmly believe. Damp Cotton also can neither be ginned nor cleaned but with difficulty: this of itself is a serious objection, to which may be added the indubitable fact that, from its too unctious properties, the floating dust of the atmosphere tends to its discoloration.

From these observations it will appear, that nitters are either natural or artificial, and that both are primarily to be traced to a defective staple, arising from diseased plants; that the artificial nitter may be generated even by the common method of preparation, unless the Cotton be judiciously dried; and that the means to which the manufacturer is obliged to resort, are evidently calculated to bring about the same results.

Of these samples, No's. 1 and 2, which are "illy got up," are lumpy and stringy, of a deep yellow tinge, and weak and uneven in fibre. The Cottons from which these are taken, it is likely were never dried: it is still more probable that they were the product of a scanty harvest. No. 3 is of natural color, open, and in texture strong and long. It is necessary here to remark, that the stringy appearance of Cotton is not always, or even mainly, the fault of the Planter. It arises principally from the same cause to which the nitter is referable, —the imperfectness of the staple or the immaturity of the fruit. This was especially true the last year.

To two considerations pertinent to the matter under review, it may be proper to advert. In every field, no matter under what sinister circumstances the crop has grown, there are small sections in which the plants come to perfection and bear healthy fruit. From these the Cotton that is picked is marked perhaps by every characteristic of the best staple, yet almost from necessity, it is thrown into the general bulk. Again, in harvest season, the laborer cannot stop to examine, if he had the ability to know, the variant qualities of the Cotton he is engaged in gathering, but promiscuously the bad, the fair and the good, are blended. This is unavoidable. Subsequently the stained is separated from the white, but the weak and strong continue together; a part only of the most deficient of the former, being afterwards detached by the whipper.

On the immediate topic of inquiry, the Committee ask leave to conclude with the following suggestions:

1. The necessity of drying Cotton in the sun for three or four hours, as its dampness may seem to indicate.

2. Select seed for planting not with a view to superiority of staple, but the production of sound Cotton. For that purpose, chose from *healthy* stalks those pods that are *fully blown*.

3. The first pickings should be set apart and not mixed with the general crop. The fibre is weak and short. The same course ought to be pursued with Cottons gathered after a storm or much rain.

4. Cotton ought to be thoroughly cleansed before it is carried to the gin. If it be well done, the after-labor will be trifling, and the fault of over-handling avoided. Too much pressure on the roller gives to the Cotton a matted appearance; if the pressure is unequal, it will be stringy.

Before closing their Report, the Committee would offer a few reflections not irrelevant they trust, to the occasion. For many years the Sea-Island crop has scarcely repaid the toil and perseverance

incurred in its production. From highly unpropitious seasons, the ravages of worms, and the cultivation of a plant peculiarly delicate and unfruitful, it may in verity be said, that it is annually a subject of congratulation with the Planter if his necessary expenditures do not exceed his profits. Except 1826, when the exportation was about 6 millions of pounds, from 1833 to 1835 inclusive, the production was less by from one to seven millions, than at any former period since 1821.*

From these facts, added to the wonderful machinery, which enable a workman now to perform the work required of two or three hundred men sixty years ago; the increase of population in those countries where the finest goods are used, and the decrease in the rates of duties in Great Britain, it was reasonable to infer, that an augmentation of price in some measure proportional to the diminished production would have taken place. From 1821 to 1829 inclusive, when the average export was 11,016,418 lbs, the average price in Liverpool was 19*d*. From 1830 to 1835 (excluding 1833, the export of which year is unknown to the Committee) when the average export was reduced to 8,208,194 lbs. the average price was as low as 17*d*.† The committee have been unable to procure the official account of the exports for 1836, '37, '38. They believe however, it would be safe to say, that the product of last year and the year preceeding was over six millions of pounds. Hence, if this be true, the two united was considerably less than the single crop of 1826, and but little more than either that of 1821 or of 1822. The present crop it is confidently believed, will not exceed, if it equal the last.‡ Although the compromise

* Number of pounds of Sea-Island Cotton exported in

1821	11,344,066	1830	8,147,165
1822	11,250,635	1831	8,311,762
1823	12,136,688	1832	8,743,373
1824	9,525,722	1833	
1825	9,655,278	1834	8,085,935
1826	5,972,852	1835	7,752,736
1827	15,140,798	1836	
1828	11,288,419	1837	
1829	12,833,307		

Average.

† 1821,	12½	to 30 <i>d</i> .	21½
1822,	10	28	19
1823,	11	24	17½
1824,	11½	27	19½
1825,	15	42	28½
1826,	10	30	20
1827,	9½	20	14½
1828,	10	22	16
1829,	9	21	15

Average.

1830,	11½	to 20 <i>d</i> .	16 <i>d</i> .
1831	9½	18	13½
1832,	9½	18	13½
1833,	10½	22	16½
1834,	13½	26	19½
1835,	14	33	24½
1836,	14	36	25
1837,	12	40	26

2*s*. 11*d*. per cwt. In 1821 the duty was 6 per cent. ad. val.

The table from which the above (to 1833) is taken, was published in 1833 by Messrs. George Holt and Co. of Liverpool. It exhibits the extreme prices of cotton and wool in that place from 1806 to 1835 inclusive. The statement of prices from 1834 to 1836 inclusive, is extracted from a Liverpool Circular, published in January last. The difference between the extreme prices has been assumed as the medium price. What the average price really was cannot with certainty be stated.

‡ At a meeting of the Agricultural Society held on the 12th Nov. it was unanimously resolved, that the members forthwith furnish a statement of the probable product of their cotton crop, which resulted in the average of 64 lbs. per acre. This was intended to be appended to the report of the Committee and published. The reported average last year was 76 lbs. per acre.

on the Tariff question in 1833, gave an impetus in the cotton trade and manufacture, which by a salutary reaction raised the price of the great product of our industry very considerably, yet, it is nevertheless true, that from meagre harvests, especially in 1836 and '37. over 4 per cent. has not been realized by the Planter. The crop of 1821, which was over 11 millions of pounds, brought 21½d.; that of 1836 and of '37 *united*, amounting, it is presumed, to about 12 millions of pounds, commanded only the average price of 25d.

The Committee are aware that in consequence of the interest of money and the profits of capital having fallen almost universally in Great Britain, every branch of industry in other countries in any wise dependent on the skill, enterprise, or capital of that commercial and manufacturing power, has also suffered. Without adverting, however to the numerous causes which are at hand for the anomaly which the statistical information presented in this report so clearly establishes, one only of the most prominent the committee would name—the practice of mixing the different sorts of cotton together. There is no kind except the finer descriptions, says Mr. Baines, which is now confined to any exclusive purpose. The long staple is generally used for the twist or wrap and the short staple for the web. In this way the black seed is made to participate in the changes, which, no matter from what cause, mark the market value of the green seed. This perhaps is the strongest reason why a more decided inequality in price between the fine and superfine qualities of long staple cotton ought to exist; to which may be added the variety of uses to which the former, alone or mixed, are applicable. From these considerations, it is apparent that, in relation to those two descriptions of vegetable wool, the one is really worth from two to three-fold more than the other, instead of from 30 to 50 per cent., which continues to be paid.*

In our unremitted efforts to produce the finest cottons in the world, sad experience shows, that we are engaged in an unprofitable enterprise. It is annually proven, that the cultivator of the common qualities realizes a much larger interest on his capital, than he who can readily command 70 or 80 cents per pound for his crop. So general is this persuasion, that the raising of hardy and productive plants, without reference to the texture of the wool, is now the main object of our desire.

All which is respectfully submitted by

WHITEMARSH B. SEABROOK,
JOHN JENKINS,
GEORGE W. SEABROOK,

} Committee.

*One pound of Cotton usually makes 8 yards of coarse muslin, and is then increased in value from the raw cotton eight fold. But if spun in the finest Yarn, it is worth 5 guineas, and in 1780, if woven into Muslin and tam-boured was worth £15. It may now be converted into a piece of Lace worth 100 guineas.—*Report of the Secretary of the Treasury*, 1836.

The finest quality of Sea-Island Cotton, remarks Mr. Baines, in ordinary state of the market, is worth three times as much as the common quality of the same class. The varieties in quality in most of the other denominations is from 20 to 25 per cent., and in none of them is more than 50 per cent.

A guide to Purchasers of Horses, with Directions for the Feeding, Equipment, Riding, &c. Compiled by P. YORK.

(Continued from page 612.)

The Hocks.—Next examine the hocks: observe that as you stand on either side of them, there be no projection at the back of the joint called a *curb*; and as you stand behind them, that the inside of the joint down below be free from little knots, or bony excrescences, which are called *bone spavins*; and on looking at them in a slanting direction, that there be no tumor above, or *blood spavin*. Look down between the horse's fore-legs for these defects, as it frequently happens that they are better seen from that view. An enlargement of the cap of the hock does not often cause lameness, though it is a blemish; but enlargements on each side of it, which upon pressure fluctuate from the inside of the joint to the outside, are termed *thorough pins*, which are in fact *windgalls*, and often cause obstinate lameness.

The Hips.—Look that both hips be of the same height, as horses are met with having the defect termed *down of a hip*.

Showing.—Having thus examined the horse as he stands, let him be run down slowly, on a rough or stony declivity, at the end of a halter, without any support to his head, or any whip near him. If he go boldly, with his knees bent, and his foot flat, and firm to the ground, without dropping his head, you may conclude that he is sound before; and if, on running him up hill, he go with his hocks regularly together, and not dragging the toe, nor dropping from the hip, you buy him as free from lameness. If he go *pattering* on the toe, and *feeling*, let him not be bought for a sound one.

How a Horse should be Shown.—Always have the horse you are about to purchase shown quietly; because when he is agitated, a slight lameness may escape your observation; and always see him ridden that you may judge how he *wears* himself, and how he uses his legs and feet; for many horses are pleasant to ride, that are unpleasant to look at when ridden; and dealers never fail to put you immediately upon their backs, when their riding is pleasanter in the feel than in the appearance. Besides when you see him ridden, whatever pace the horse is continually kept in, that pace is best: and whatever he is hurried out of, he cannot do at all, or be well assured that no opportunity would be lost of exhibiting it.

Lameness; how Discovered.—Take notice that in examining a horse for lameness, you may often detect it by only looking at his ears; for all horses that are lame before, drop their heads when they throw their weight on to the sound leg; and those that are lame behind throw their heads up when the sound leg comes to the ground.

Fencing.—Whenever a horse stands in the stable *fencing*, that is, with a foot out under the manger, it is a certain sign that something exists uneasy to him, and may give you just reason to suspect unsoundness.

String Halt.—*String halt*, or a singularly high motion, or switching up of the hind-legs, is too glaring to escape observation; it does not constitute unsoundness, though it lessens a horse's value. Bone spavins not unfrequently occasion a similar method of going. But there are no horses with this affection thoroughly bad.

Wind.—With regard to wind, some horses naturally possess greater freedom of breathing than others; for instance, a horse with large open nostrils, a wide gullet, a short neck, and a deep, wide chest, has generally superior wind, to one with the contrary shape. There are two kinds of disease injurious to the windpipe, which creates *whistling* and *roaring*; the other an affection of the lungs which produces *broken wind*.

The usual way to discover the first of these imperfections, is, to go up to the animal in the stall, and taking fast hold of his head, flourish a stick about him suddenly, or strike him. If he groan he is a *roarer*. But this method will not detect a mere *whistler*; the surest way, therefore, is to gallop the horse with a bridle tightly curbed, and at the same time agitate him as much as possible. If he make a wheezing noise or blow with the same kind of sound as is produced by blowing upon a knife placed between one's mouth, he is not sound in his wind. The state of the wind is sometimes ascertained, and with great accuracy, by the sound of the cough; and in the following manner. Grasp the windpipe at the throat tightly, and then immediately let go the hold, the horse is sure to cough. If he cough *bullily*, that is, if the cough sound like the lowing of a bull, the disease I just mentioned is in existence. But this cannot be often done with the same horse, or it would produce the very disease in question, and is indeed, a method so delicate and difficult as not to be tried without express permission of the owner, nor with it, if you possess any claim to humanity. If he cough *short and hacking*, the lungs are affected, and he is *broken winded*; but if the cough be long, and shrill, the wind is good. Be careful to leave hold of the wind the moment you have compressed it; for if you hold it long, the horse will cough shrill, even if he have imperfect wind.

Always gallop a horse as well as make him cough: a horse with the roaring, or the short cough, should be rejected immediately.

By making a horse cough, another advantage arises; viz. that you may discover if he be affected with a cold; in which case, upon compressing the windpipe, he will cough repeatedly.

Injurious Habits.—*Crib-biting* is a bad habit to which many horses are addicted. It consists in taking hold often of the manger, and at the same time drawing in the breath, accompanied with a *gulping* noise. The effect of it is loss of flesh and condition in the animal, and sometimes injury of the wind. It is cured by a little salt, when it proceeds, nine cases in ten, from acid on the stomach.

Wind-Sucking is nearly the same only without taking hold of the manger. It is caused by the animal's desire to cool his interior, and a little salt in his oats by removing the cause often allows the habit to drop.

As these habits are not always discoverable during the short time you are in a dealer's stable, it is advisable to have the horse you are about to purchase warranted free from these defects, in addition to the warranty of soundness, as the latter does not provide against them.

It is also prudent to have the horse warranted free from restiveness; though you may discover this by riding him several times past his own stable door; if he be restive, he will manifest his self-will by endeavoring to turn in, and in rearing if you attempt to prevent him.

Injuries of the back.—Injuries of the back, which are not unfrequent, are discovered by *backing* the animal; and if he perform the

retrograde motion with the least degree of difficulty, he has experienced some serious dorsal injury.

There are other imperfections which need not be mentioned, as none but the lowest description of persons would keep for sale horses possessing them.

ON THE ROAD HORSE, OR HACKNEY.

It would extend this little work too far, to attempt describing all the varieties of the Horse, as Racer, Hunter, &c. It is better to content ourselves with a Portraiture of that variety which is most in request.

The *road-horse* is more difficult to meet with than even the Hunter or the Racer. There are many reasons for this. The price of the hackney or the horse of all-work, is so low, that he who has a good one will not part with him; and it is by mere accident that he can be obtained. There are also several faults that can be overlooked in the hunter, but which the road horse must not have. The hunter may start, may be awkward in his walk, or even his trot; he may have thrushes or corns; but if he can go a good slapping pace, and has wind and bottom, we can put up with him, or prize him: but the hackney, if he be worth having, must have good fore-legs, and good hinder ones too; he must be sound on his feet; even-tempered; no starter; quiet in whatever situation he may be placed; not heavy in hand; and never disposed to say his prayers.

If there be one thing more than any other, in which the possessor, and, in his own estimation at least, the tolerable judge of the horse, is in error, it is the action of the road horse: "Let him lift his legs well," it is said, "and he will never come down."

For pleasant riding, and for safety also, a hackney *should not carry his legs so high*. His going a little too near to the ground is not always to be considered as an insuperable objection. The question is, does he dig his toe into the ground?

Mount him and put him to the test. Take up his feet and examine them. If the shoe, after having been on a week, or a fortnight, is not unnecessarily worn at the toe, and you feel him put his foot flat on the ground, do not scruple to buy him, nay, esteem him a "choice-gifted hackney," well worth the long price, although he may not have the lofty action which some have erroneously thought so necessary.

Every horse, however, is liable to fall, and hence comes the golden rule of riding, "*never trust to your horse*,"—always feel his mouth lightly. He does wrong who constantly pulls might and main; he will soon spoil his horse's mouth and render his own work always necessary. He does worse who carelessly throws the reins on the neck of the horse. *Always feel the mouth lightly*; you will thus be able to give the animal assistance *immediately*, before he is too much off his centre, and when a little check will save him. By this constant gentle *feeling* you will likewise induce him to carry his head well, than which few things are more conducive to the beautiful, safe and easy going of the horse.

The road-horse may, and should, like the hunter, possess different degrees of blood, according to the nature of the country, and the work required of him. When approaching to thoroughbred, he may be a splendid animal, but he will be scarcely fitted for his duty. His legs will be too slender; his feet too small; his stride too long; and he

will rarely be able to trot. Three parts, or half, and for the horse of all-work, even less than that, will make a good and useful animal.

The hackney should be a hunter in miniature, with these exceptions. His height should rarely exceed fifteen hands and an inch. He will be sufficiently strong and more pleasant for general work below that standard. He should be of a more compact form than the hunter, and have more bulk according to his height; for he has not merely to stand an occasional although severe burst, but a great deal of every-day work.

It is of essential consequence that the bones beneath the knee should be deep and flat, and the tendon not *tied in*.

The pastern should be short, and although oblique or slanting, yet far less so than that of the race-horse, and considerably less than that of the hunter. There should be obliquity enough to give pleasant action, but not enough to render the horse incapable of the wear and tear of constant, and sometimes hard work.

The foot is a matter of the greatest consequence in a hackney. It should be of a size corresponding with the bulk of the animal, neither too hollow nor too flat; open at the heels; and free from corns and thrushes.

The fore legs should be perfectly straight. There needs not a moment's consideration to satisfy us that a horse with his knees bent, will, from a slight cause, and especially if he be overweighted, come down.

The back should be straight and short, yet sufficiently long to leave comfortable room for the saddle between the shoulders and the *huck* without pressing on either. A back with the proper curvature will carry more, endure longer, and be more pleasant than one perfectly straight. (See page 605.) Some persons prefer a hollow-backed horse. It is generally an easy one to go. It will canter well with a lady; but it will not carry a heavy weight, nor stand much hard work.

The road-horse should be high in the forehead; round in the barrel, and deep in the chest: the saddle will not then press too forward, but the girths will remain, *without crupper*, firmly fixed in their proper place.

A hackney is far more valuable for the pleasantness of his paces, and his safety, good temper, and endurance, than for his speed. We rarely want to go more than eight or ten miles in an hour; and, on a journey, not more than six or seven. The fast horses, and especially the fast trotters, are not often easy in their paces, and although they may perform very extraordinary feats, are disabled and worthless when the slower horse is in his prime.

In conclusion.—The surest way to be fortunate with horses, is always to buy those that are young and sound: without blemish, with good action, and most particularly with good mouths; as one of the first things to be observed is, that a horse bend to his bridle. You may just as well ride a pig, as a horse without a mouth; and a wooden horse, as one without action. Be assured, if your horses be purchased with attention to these directions, and you should be at any time, from unforeseen circumstances, compelled to offer them for sale unexpectedly, you will meet with plenty of customers.

Never encumber yourself with *screws*; they require more attention than sound horses; they do less work; are worth nothing for sale; but contribute to lessen the opinion of your judgment.

Warranty.—To “make assurance sure,” it is always proper, not only to exercise your own observation and judgment, but to take a *written* assurance from the seller, or “warranty,” (as it is called) the best form of which is subjoined.

‘Received of A. B. forty pounds for a grey mare, warranted only five years old, sound, free from vice, and quiet to ride and drive.

£40.

C. D.’

A receipt, including merely the word ‘warranted,’ extends only to soundness,—‘warranted sound’ extends no further; the age, freedom from vice, and quietness to ride and drive, should be especially named. This warranty extends to every cause of unsoundness that can be detected, or that lurks in the constitution at the time of sale, and to every vicious habit which the animal has hitherto shown. To establish a breach of the warranty, and to be enabled to return the horse or recover the price, *the purchaser must prove that it was unsound or viciously disposed at the time of sale.* In case of cough, the horse must have been heard to cough previous to the purchase, or as he was led home, or as soon as he had entered the stables of the purchaser. Coughing, even on the following morning, will not be sufficient; for it is possible that he might have caught cold by change of stabling. If he is lame, it must be proved to arise from a cause that could not have occurred after the animal was in the purchaser’s possession. *No price will imply a warranty,* or be equivalent to one; there must be *an express warranty.* A fraud must be proved, in the seller, in order that the buyer may be enabled to return the horse or maintain an action for the price. The warranty should be given at the time of sale. A warranty, or a promise to warrant the horse, given at any period antecedent to the sale, is invalid; for the horse is a very perishable commodity, and his constitution and his usefulness may undergo a considerable change in a few days. A warranty after the sale is invalid, for it is given without any legal consideration. In order to complete the purchase, there must be a transfer of the animal, or a memorandum of agreement, or the payment of earnest-money: the least sum will suffice for earnest. No verbal promise to buy or to sell is binding without one of these; and the moment either of these is effected, the legal transfer of property or delivery is made, and whatever may happen to the horse, the seller retains or is entitled to the money. If the purchaser exercises any act of ownership, by using the animal without leave of the vender, or by having any operation performed, or done to him, or medicines given, he makes him his own. The warranty of a servant is considered to be binding on the master.*

ON EQUESTRIAN EQUIPMENT, AND THE KEEP AND MANAGEMENT OF THE HORSE.

Reader, we shall now consider the purchase already made, as it would be difficult to add any thing to the advice you have received on this point. If you have acted on the foregoing directions, you must have become master of a good serviceable horse; but whether it shall prove to you a pleasant acquisition, or appear to others a gentlemanly set out, now depends on your equipment and treatment of it. Few things, external to the man, are more discriminative of his style than

*The weight of authority decides that the master is bound by the act of the servant. Lord Kenyon, however, had some doubt on the subject.

the appointment of his horse furniture, or more expressly mark his proficiency in jockeyship; and as no one likes to be reckoned vulgar at any time, nor a novice in horse-flesh when on horseback, a few additional hints on this topic, will not be unacceptable to those who meditate equestrianism.

First of all, study as much simplicity in your equipments as is compatible with efficiency; for the absence of all apparent effort, both in his appointments and deportment, is perhaps one of the most distinguishing traits of a well-bred man; and besides, all that is not strictly necessary will probably prove a source of annoyance and irritation to your horse. A plain snaffle bit and single rein, when it can be used, which in nineteen instances out of twenty is the case, is infinitely the most pleasant and handy bridle. It also lessens the probability, to those who have not acquired a good hand, of galling the mouth, which is by far the most general source of vice in horses. Should you have any prospect of *crossing the country* with your horse, instead of getting the bridle with a buckle in the middle of the rein, have it made of a single thong, with one of the sides of the bit, or cheek-pieces, moveable, and passing through a ring at the end of the bit, by which means you will be able to use the whole length of the bridle as a halter to lead your horse over fences, or through difficult places.

If your horse be very difficult to hold, or much given to shy and start, a double bridle will be necessary, but the greatest delicacy and caution must be observed in the use of the curb, if you desire to keep on any terms with him. (See page 608.) Feel his mouth with the bridoon, and have the curb more as a reserve, for if you recklessly check or fret his mouth with the latter, he will view you with fear and aversion, and will probably one day have a signal vengeance on you. The power of the curb depends on the length of the cheek-pieces, which ought always to be straight.

Martingals are too much in use, (See p. 608.) They tend to confine a horse's action, and prevent him recovering himself when he stumbles. Their use very often originates in the previous abuse of the horse's mouth, by a coarse hand, which gives him the habit of throwing up his head to rid himself of the irritation of the bit. They are sometimes also sported from a false and vulgar idea of style, but unless imperatively required, form a part of that overmuch equipment which the man of taste will always be studious to discard. In some few cases, however, when the horse has a tendency to raise his head very much, and hold his face nearly horizontal in his quick paces, or is given to rear, they are indispensable.

The most essential requisite of the saddle is lightness, and to secure this, particular attention should be paid to the formation of the *tree*. Unless this be neatly made, a superfluous quantity of stuffing will be required to make the saddle comfortable to the horse, which both renders it clumsy, and, by increasing its thickness, gives the rider the appearance of not sitting closely to his back, and thus produces an ungraceful effect. It is difficult to describe the shapes of a well made saddle, but the superior elegance of its general *tournure* will most readily be perceived by comparing it with a cheap or country-made article. The most prevalent fashion now is to have them made rising perpendicularly from the front of the flaps, to the pommel, (the part which comes on the withers) but they should rather be cut back here, as it shows the horse's forehand and shoulders to greater advantage.

The stirrup irons ought to be full-sized and rather heavy, as in case the rider loses his seat, his feet are less apt to be entangled.

There is an appendage to the saddle called a crupper, which may still be observed to be used by some quiet old people about country towns, and also by those who are termed *citizens, par excellence*; but reader! as you value your character as a jockey or a gentleman, avoid it. A crupper is at once a standing imputation on your horse's shape, since no well made one will require it, and at the same time, the very greatest *mauvais ton* that can be committed in the matter of horse-flesh. But what, say you, if the horse wont do without it?—Sell him. If you cannot do this, the most private opportunities which occur along the road, must be selected to shift back the saddle from time to time.

About twenty years ago, gentlemen, even when not riding to hounds, generally carried a long whip, which, in crossing a country, may be useful when its shaft clears a way through coppice, or its thong silences a yelping cur. But the lingering remains of this fashion are also still to be seen on the road in a certain class of equestrians, who seem to imagine that carrying such an implement, gives them a more sportsmanlike air on horseback—which is “a mistaken notion.” A light cane is sufficient to propel any horse, which, if he be hot-tempered or fractious, should be kept backwards by his side, out of his sight. Spurs are seldom requisite, unless for *crossing the country*; but if your horse is a stumbler, they will tend to keep him up and awake on the road.

It is scarcely necessary to add, that the quality of the *materiel* should be particularly attended to in all your equipments. Cheapness and goodness are nowhere more incompatible than in horse furniture. A cheap saddle and a bridle are like a cheap hat, very dear for the using.

Reader, you are now supposed to be in possession of horse and furniture. All that remains is to give you a few general principles, as to using your animal on the road, in the field, and on its return to the stable.

NOTES ON EQUESTRIANISM.

From the Lessons of Captain Stewart, late of the Life Guards, and other authorities.

Art of Riding.—Preliminary Remarks.—Modern riding is of two kinds, viz. military and jockey-riding, of which, the former is the most graceful, but the latter is the most practically useful. In mounting, be careful not to allow your toe to touch the horse's side, which might make him start, in which case you would inevitably fall. In sitting upon horseback, you must not sit stiff or cramped, but pliable, for by sitting thus, you avoid all rough motions of the horse; your legs should hang gracefully and easily from the hip; you should sit upright, and your shoulders well back. When your horse is at all inclined to be restive, you should not throw your body forward, as is usually the case on such occasions, for that motion moves you from your catch, and throws you out of your seat: the best way to keep your seat, or to recover it when lost, is to advance the lower part of the body and bend back your shoulders. At all flying and standing leaps, the rider is most secure in keeping himself well back. Always ride with the stirrup leathers a hole or two shorter in crossing the country than on the road.

Mounting.—Place the whip or switch in the left hand, handle upwards, take the bridle between the third and little finger, the latter separating the two sides, and, if it be double, the hind half loosely held in one with all the fingers. The buckle being exactly at the top, will show if the sides are of equal length. Carefully examine that the curb chain sit loose, and the girth be firm before mounting. If, in fixing the curb, you turn the chain to the right, the links will unfold themselves, and then prevent further turning. Seize a handful of the mane with the same hand, and with the other take hold of the crupper end of the saddle. Take your position with your left side toward the fore-leg of the horse, so that, if vicious, he can neither reach you with it striking forward nor backward, nor with his hind-leg, which you are especially exposed to when standing square with your saddle. Press the side of the knee on the saddle as you place the left foot in the stirrup, and spring up, changing the hand from behind to the pommel as you turn. Sit then as close to the pommel with the fork as possible, and keep the shoulders well squared, and never allow either toe to touch the horse; taking care not to lapse into the prevailing habit of advancing one before the other—to which the left one seems most liable from the pull of the reins.

Dismounting.—Keeping the bridle as in mounting, seize a large left handful of the mane. Having previously placed your whip end downwards in that hand, rise in your stirrups, press the left knee in and holding by the back of the saddle, to which the right hand changes from the pommel as you swing off, come with the right foot to the ground.

Riding.—General Maxims.—The general attitude is just that of standing at ease, but with the legs astride. The body ought never to come past the perpendicular forwards, this preserved, it is almost impossible to be unhorsed. This of course throws forward the fork and chest, and upward and backward the head, while it turns in from the hip joint the whole limb below, forcing the knee and the outer or muscular surface of the thigh to hold upon the saddle. It is thus that the clasp of these muscles leaves all the body above the fork to swing at perfect ease. The knee must be bent downwards too, so that the stirrup strap hang quite perpendicularly, while, to fill the stirrup, the foot is turned up, and the heel depressed, by the ankle joint curving outwards and inwards. The hold upon the stirrup is slight, but in a diagonal line from the ball of the foot, to the root of the little toe. The stirrup leathers should be rather short, than otherwise. The toe of the boot not to be seen in sitting straight,—the fork well forward and set as little on the bottom as may be. In turning a corner take full room and press the leg close to the horse, on that side from which you wish it to turn. For example,—you desire to go to the right,—press with the left leg, and *vice versa*. The mere moving the wrist ought to be enough as relates to the reins in wheeling, and well-trained horses well ridden will turn, yet scarcely move its forefeet if the rider all the while takes care by easing his body to keep his horse well below him.

Leaping.—In the rising of the animal to the leap, cling the legs close into its belly, although you have spurs, for if you keep the heel well down, there is no danger. Bend very far back from the fork, and the moment the horse begins to descend, lean forward, taking care to keep the hand steady, and the horse straight onwards, but being ready lest it swerve to one or other side, to yield the body in that

through the palm, until of the same length as the snaffle, and then take up the loose part with the right hand, passing it between the fourth and ring-finger, and the first finger and thumb; or if both bridles be held in one hand, the third finger may be passed between the snaffle rein and the fourth between the curb, after which both are to be brought over the forefinger, and held fast by the thumb. In riding on the road, the stirrups are generally shortened so as to permit a slight rise from the saddle while the horse is trotting; a motion both pleasanter to the rider and easier to the animal than the jog-jog pace at which soldiers are taught to ride. In hunting, crossing the country, and racing, the stirrups are still more shortened by a hole or two than when on the road; by which means the horseman is enabled to stand in his stirrups and avoid touching the saddle; a position less wearisome to a horse than the former, but only practicable at a gallop. The expression of "*standing in the stirrups*," is very common, although, were this to be actually practised, it is questionable whether it would be so easy to a horse as when the rider sits firm on the saddle; but the fact is, that, instead of bearing the whole weight on the stirrups, the body should be mainly supported by gripping the saddle firmly with the knee, both in this position and every other. In leaping the knee and thigh are chiefly to be depended on; some people, indeed, quit their stirrups previous to taking a high leap, for fear of the foot being entangled in case the horse should fall. The body should be slightly inclined forward when the horse rises to leap, and thrown backwards as he falls; the thigh and knee should keep a firm hold of the saddle, and the leg, thrown rather backwards, should be tightly pressed against the horse's belly, taking care, however, not to hold on by the spurs. Many horses are thrown down in leaping, by the awkwardness and indecision of their riders, who first run them at a fence, and, when near it, and too late to retract, wish they had not done so, endeavor to pull up, and thus check their horse while in the act of making his spring. When coming to a leap, therefore, make up your mind whether you will ride at it or not; and if you decide in favor of the former, go at it resolutely, and let no after-thought baulk your determination. In riding, whether on the road, or elsewhere, keep your arms and legs steady, for nothing looks worse than to see a man with outstretched arms, as though he were going to leap from his saddle, and working his legs to and fro, so as to merit the accusation of *going faster than his horse*. In Racing, a horse should be kept well in hand and, when spurred, the heels should be drawn back to his flanks with as little motion as possible, and not, as is frequently the case, kicked into him, when at the last rush, in such a manner as to expel the little wind he has left in him.

(To be continued.)

direction. *Before* leaping the hand holding the reins has "of course" been elevated. The shock is at the moment the horse puts his foot to the ground.

On the Road.—Cross all who meet you leaving them to the right, and all whom you *pass* on the left hand, unless when carriages are on the main road, and you on the bridle path. Be ready in an instant to look forward between your horse's ears. In most cases, ride with a light hand, and trust for no support to the body from the bridle at *any time*, but keep the fingers so alive to a touch that you can pull up in an instant.

GENERAL REMARKS.

The chief requisite for becoming a good horseman is confidence; and this once obtained, a good seat, as it is commonly called, is not very difficult of attainment. It is undoubtedly the chief, though not the only point in riding, to be able to sit a horse without danger of being thrown. It is a common custom in military equitation, to ride with very long stirrups, to sit perfectly erect, and to move but little in the saddle; that is to say, the motion of rising in the stirrups when trotting, is, as much as possible, avoided. The seat is to be placed well down on the saddle; that is, not projecting back towards the cantle, but, in riding-masters' phrase, kept "well under the rider." To effect this, the body must be thrown back, and the legs and arms kept steady. The best mode of learning to ride is to begin without any stirrups, so as not to acquire a habit of placing too much reliance upon them, for the firmness of a man's seat on horseback mainly depends upon the knees and thighs, although in some cases, as in leaping, the calf of the leg is of great service. The leg should be placed as near as possible, so that a line dropped from the knee may touch the toe; the ball of the foot should rest in the stirrup, and the heel be inclined downwards and turned out, but not too much so, by which means the knee has a firmer hold of the saddle. The right hand, when not used, is, by soldiers, allowed to drop rather behind the corresponding thigh. On putting a horse into a trot, both legs should be equally pressed to his body; but, for the purpose of making him canter, the heel of the rider opposite to the leg which the horse is required to strike or lead with, should be applied to his side smartly and farther back than the other heel: thus, to make a horse lead with the right leg, close both legs upon him at the same time, but press firmest and farthest back with the left, at the same time shortening the left rein, so as to incline his head to that side, and throw his hind quarters the other way; *et vice versa*. Some horses require lifting with the hand to make them canter; but though, at this pace, it is well to raise the horse in a slight degree at every stroke, yet it has a very ugly appearance to see a man jerking his horse's head previously to putting him into a canter, and resembles that elegant trick, which several old gentlemen practise, of tugging three or four times at the rein when driving, in order to accelerate the pace of their beast. The use of the hand is of the very greatest importance in riding. The general mode of holding the reins taught in military schools, is as follows: To take up a single snaffle bridle, place the little finger between the two reins, then draw them through the palm of the hand, turn the ends over the forefinger, and close the thumb upon it, at the same time shutting the hand. If a double bridle, after taking up the snaffle as before described, and before shutting the hand, draw the curb rein on one side

PART III.

MISCELLANEOUS INTELLIGENCE.

The Mulberry.—The demand at the North for the *Morus Multicaulis*, has given a new impetus to the industry of our city. Every person who has the stock are multiplying cuttings for the further increase of this valuable tree, whilst others are purchasing with a similar view. There cannot be a more profitable investment of money, than expended for this purpose, and we trust that every one will put as soon as practicable every unoccupied piece of land under its culture. From 80 to 100 trees were sold this week at \$5 a piece for planting.—*St. Augustine News.*

Oranges.—Our Orange trees continue to look well. Next year there will doubtless be some shipped hence. The orange of Florida has long had a deserved celebrity, being juicy, and of a remarkable delicacy of flavor. The severe winter, three years ago, destroyed altogether this source of the income of many of our citizens; and the loss was felt severely by them as well as by markets abroad. Next year, this luxury, we may reasonably hope, will be again for sale, and a return yielded to their possessors.—*Ibid.*

A good Yield.—We see by a communication published in the Savannah Republican, that Dr. Wm. O. McConnel of Liberty County, raised the past season, eighty-three bushels three pecks and three quarts of Corn from one acre of manured ground.

Cause of the change in Leaves by Frost.—Experiments by some of the chemists of Europe, Mr. ——— among the number, have proved that the difference of the color of leaves after the frosts of autumn, is owing to some change in the texture of the leaf, whereby the usual evolution or throwing out of oxygen is prevented, and an acid is formed. This acid acts upon the coloring matter and changes it to the beautiful hues we see. By soaking the leaf in a solution of an alkali, pearlsh, for instance, the green will be color restored.

Improvement of the last twenty years in the Culture of Corn.—"One of the most valuable improvements in the husbandry of the last twenty years, is that of planting this crop on an inverted greensward. The sward is completely turned over after vegetation has considerably advanced. The manure is applied on the top of the soil; and the field is then rolled in a thorough manner. The ground is next harrowed; and the corn planted either in drills or in hills. When the roots of the corn pierce the sod, they find an abundant pabulum of decayed vegetable matter, equal by as exact a calculation as can be made, to twelve tons upon an acre; and the crop is forced on at the last of the season, when it particularly needs this stimulus and food, to great advantage.

It is important in these cases that the sod should remain unbroken; and where the corn is cultivated on a flat surface, and no hills are made, the land may be easily laid down immediately to grass, the seed being sowed at the last hoeing; or it may be thoroughly harrowed after the crop is taken off, and then laid down with winter grain and grass seed. The benefits of the decomposed sod, being thus all secured in the soil, will be felt for a long time; and the comparatively small expense of this mode of management strongly recommends it."

Prevention of Smut in Wheat.—A kind Providence has made ample provision for the cure of diseases in man and beast; and the *Materia Medica* furnishes a description of what is to be used in the various diseases that afflict the human race. Man can describe his own symptoms when he is diseased; and the experienced Physician, from the symptoms described and noticed by himself, can apply the proper remedy; but his success must depend on a right decision of the cause of the disease he intends to remove.

In the vegetable world the case is different, and the cause of existing evils in our grain crops is more difficult to ascertain. Still we admit, when the cause is known, it will aid in finding out a cure for these evils—whether from disease or insect. But to the farmers in general whose crops are injured and perhaps destroyed by smut, rust, or the insect, the cause is not of so much importance to them as the successful means of removing the evil; and if any have discovered a remedy, which they can apply, the end to them is answered.

As the time is near for the sowing of wheat, it is proposed to give a few of the successful means used in England and France for the prevention of smut in wheat. The means used in this country has been given to the public.—*Maine Farmer*.

Butter.—When the last roll is almost gone, the prudent housewife feels the importance of procuring as much good butter as possible from the cream that has been collecting, for a week or more perhaps from the milk of one cow, and thus she will churn the usual length of time with careful management. yet it will sometimes happen that the butter (as the phrase is,) will not come, and she may churn for several hours and there will apparently be no change, the particles of butter remaining perfectly dissipated.

The writer of this article has recently been in a similar dilemma. I feel a wish to inform my sister butter-makers the means I used which so successfully removed the difficulty. I creamed perhaps three hours to no purpose and then tried to think of some remedy that I had read in the *Indiana Farmer*, or some other periodical, could I not remember precisely, but I recollected the reason stated was the churn being too sour; I then thought of soda, (pearl ash I presume would do as well,) and dissolved a large teaspoonful in a pint of warm water, and as I poured it in, churning at the same time, it changed in a moment and gradually formed into a beautiful solid lump of sweet butter.—*Indiana Farmer*.

Singular quality of Coffee Berries.—The tropical fruit of richest perfume is the soonest to loose it. Coffee berries readily imbibe exhalations from other bodies, and thereby acquire an adventitious and disagreeable flavor. Sugar placed near coffee will, in a short time, impregnate the berries and injure their flavor. Dr. Mosely mentions that a few bales of pepper, on board of a ship from India, spoiled a whole cargo of coffee.

India Rubber Paste.—The following recipe, discovered by a Mr. Smith, of Baltimore, is highly recommended as a water proof covering for boots and shoes. The following preparation is said to be sufficient for fifty pair of shoes.

Take three ounces of gum-elastic, cut it into fine shreds; put it into a gallon jug, add to it three quarts of Seneca oil; let it stand three or four days, when the gum will have been dissolved and the past fit for use. Stir before using; then rub the uppers and soles of the boots and shoes well with it three or four different times before the fire, so long as the leather will absorb it. The degree of comfort which the mixture will insure to the wearer of heavy boots can only be realized on trial. It might be used with an equally good effect upon the harness and gearing of work-horses, and we have no doubt make one pair last as long as two.

Morocco Leather.—The following is the method of preparing the morocco leather at Mogadore. Wash the skin in fresh water, take away all the fleshy particles, mix together two pounds of alum, two pints of butterwilk, two or three half lbs of barley meal, and spread the mixture on the inside of the skin; fold it and press it well, and then leave it for two days. On the third day wash it in sea water, and hang it up; then spread upon it two pounds of roche alum, powdered and leave it for two or three days; then dry it in the sun; sprinkle one or two pints of fresh water on it, fold it, and let it imbibe the water for two hours, then spread it on a table and rub it with pumice or rough stone, to make it soft and pliant.—*English paper*.

Communicated for the Southern Agriculturist.

Monthly Calendar of Horticulture, &c.

FOR DECEMBER.

Peas.—The principal crop of peas should be planted in this month, and the earlier the better. The Dwarf Marrowfat and Green Imperial are generally preferred. *Knight's Dwarf Marrowfat* are highly spoken of. At the same time we would recommend some of the early varieties to be planted, such as the Early Frame, Early Charleton, Bishop's Dwarf, &c. These will come into bearing earlier than the first mentioned. The tall varieties should be planted in rows 5 feet apart—the Frame and Charleton's 4 feet, and the Dwarf varieties from 18 inches to 3 feet. They should be hoed frequently, which will materially assist their growth, and as soon as they are high enough, say about 6 inches, they should be stuck. If planted in single broad rows, one row of sticks will be sufficient. In cutting them out of the woods, let all of the twigs and small branches remain their full length, and when using them, stick them obliquely, and not more than one half will be required, of what would have been necessary, if they had been stuck upright, as the small branches will act as conductors for the young peas to climb on. Peas should not be manured highly, it causes them to grow too much to vines, and they do not produce as well as when only moderately manured.

Spinage.—You may still continue sowing crops of this vegetable—either the round or prickly will succeed, and in fact I have never discovered any difference in this respect between them. We prefer, however, the new variety called the Flanders Spinage—it is far superior to the old varieties. For directions for sowing, &c. see former numbers.

Onions.—Where small setts can be obtained, or where they have been raised from seed sown in summer, this will be an excellent time for planting them out; Form small beds, 4 feet wide, manure it highly with well rotted manure, and plant the setts in rows 9 inches apart each way.

Carrots, Beets, Salsafy and Parsnips.—Should either of the above be wanted, a small quantity may be sown, but the chance of success is very small, unless great care be taken of them and protection afforded them whenever the weather is severe. They will particularly require protection when they are coming up, and whilst young.

Cabbages.—If it has been neglected, this will be a good time to sow Cabbage seeds for spring use. The Early York and Emperor are to be preferred; the Sugar-loaf and Battersea will succeed these. Sow on a seed bed, and make a shelter over them with pine boughs, or straw. Let the covering be from 2 to 3 feet above them.

Lettuce.—Any of the varieties may now be sown. They will of course require protection in cold weather.

Radishes.—If the weather should prove mild, a small quantity may be sown in some protected spot, or they may be protected in cold weather by a little straw thrown over them, which, however, must not remain long on them, but should be removed as early as practicable.

Irish Potatoes.—It is not usual to plant Irish Potatoes until February and March, yet for an early crop we would recommend some to be planted in this month—let them be buried deep, and be well manured. They lie a long time in the ground, and will not come up before February. (unless the winter is very mild.) They will in all probability have their tops killed several times, but if they have not advanced so far as to form tubers, this will be of no consequence, as the tops will be killed only to the first joints below the surface, and new shoots will spring up, while the lower parts will be sending out roots and establishing itself, and will, if it escapes entire destruction, produce earlier tubers than those planted so late as not to be injured at all by the frosts. Should, however, tubers (ever so small) be formed on the shoots, and a frost occurs afterwards, the plant will be killed in nine cases in ten, to the very roots. Some risk is therefore to be encountered, and we recommend on that account but a few to be planted now.

Mazagon and Windsor Beans.—You may continue to plant any of the varieties of this vegetable. For directions, see last month.

HORTICULTURAL SOCIETY.

The following Premiums were awarded at the last Anniversary of this Society.		
To Mrs. Davis, for Ranunculus,		a Silver Medal,
To Mrs. Cochran, for Picotees,	do.	do.
To Mrs. Wagner, for the best cultivated garden,	do.	do.
To Mrs. F. Rutledge, for the best Cauliflowers,	do.	do.
To Col. Lucas, for the greatest number and variety of the Camellian Japonica,	do.	do.
To the same gentleman, for Hyacinths,	do.	do.
To the same for Musk Mellons,	do.	do.
To Mr. John Michel, for the Reticulata,	do.	do.
To the same gentleman, for the finest specimen of a Rose,	do.	do.
To the same, for the finest variety of Roses,	do.	do.
To Dr. Winthrop for the most beautiful flowering Exotic,	do.	do.
To Mr. Andrew Gray, for the finest collection of Dahlia,	do.	do.
To Mr. M. D. Stroble, for an Indigenous Shrub,	do.	do.
To Mr. Edward Barnwell, for Cellery,	do.	do.
To the same gentleman, for Cabbages,	do.	do.
To Mr. James Bancroft, for Artichokes,	do.	do.
Likewise for Guinea Squashes,	do.	do.
To Dr. E. Horlbeck, for London Leeks,	do.	do.
To Mr. Joseph A. Winthrop, for Sugar Beets,	do.	do.
Likewise for Strawberries,	do.	do.
To Mr. J. Hartmen, for Napoleon Potatoes,	do.	do.
To Mr. Tobin, for White Onion, raised in the garden of Dr. North,	do.	do.
To Mr. Charles Bassacker, for Peaches,	do.	do.
To Mr. Henry Horlbeck, for Nectarines,	do.	do.
To Mr. Henry Sifley, for Apricots,	do.	do.
To S. Magwood, for Pears,	do.	do.
To Mr. F. Michel, for Perrigaud Plums,	do.	do.
Likewise for Portugal Quinces,	do.	do.
To Mr. Wm. McKewn, for Apples,	do.	do.
To Mr. T. F. Purse, for imported Mulberries,	do.	do.
To Mr. George Chisolm, for Grapes,	do.	do.
To Mr. Ed. DeCottes, for Figs,	do.	do.

JOS. F. O'HEAR, *Secretary.*

